GIGABYTE™

# Gigabyte GP-UD1300GM PG5

Serial Number -

Lab ID GB13003306

Certification ID 263306

Test Result Report ID: 26PS3306A

Certificate Issue Date: Jun 10, 2026

115V

Scheme: ETA-EMI PSU




115V




Scheme: LAMBDA PSU




Outside Validation Scope



# General Information

## Test Equipment

| | |
|---|---|
| Electronic Loads | Chroma 63601-5 x2<br>Chroma 63600-2<br>Chroma 63640-80-80 x10<br>Chroma 63610-80-20 |
| AC Sources | Chroma 6530, APM SP300VAC4000W-P, GW Instek ASR-3500 |
| Power Analyzers | Rohde & Schwarz HMC8015 & NPA701 |
| Oscilloscopes | Picoscope 4444, 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 |
| EMI Analyzer | TekBox TBMR-110M-EU |
| Isolation Transformer | 4kVA |
| UPS | FSP Champ Tower 3kVA, CyberPower OLS3000E 3kVA |
| Testing Methodology | Cybenetics PSU Test Protocol |

## DUT Information(Non-accredited measurements)

| | |
|---|---|
| Product Identification Details | |
| Brand | Gigabyte |
| Model | GP-UD1300GM PG5 |
| OEM/ODM | Guangzhou Pansheng Electronic Technology Co., Ltd |
| Serial Number | - |
| Product Specifications | |
| Manufacturer-Provided Information | |
| Rated Voltage (Vrms) | 100-240 |
| Rated Current (Arms) | 7.5-15 |

| | |
|---|---|
| Rated Frequency (Hz) | 50-60 |
| Rated Power (W) | 1300 |
| Operating Temperature (Continuous Full Load) (°C) | 0 - 50 |
| Type | ATX12V |
| Cable Design | Fully Modular |
| Warranty | 10 years |
| Cybenetics Measurements | |
| Dimensions (W x H x D) | 150 x 85 x 160mm |
| Weight | 2.04 kg (4.50 lb) |
| Cooling | 140mm Dual Ball Bearing Fan (PLA14025B12H) |
| Semi-Passive Operation | ✓ |
| Cybenetics Testing Information | |
| Lab ID | GB13003306 |
| Date of receipt | May 6, 2026 |
| Testing Date | Jun 5, 2026 |
| Report Issued Date | Jun 10, 2026 |
| Engineer Name | Ioannis Kalyviotis |
| Authorized By the Laboratory Technical Manager | Aristeidis Bitziopoulos |
| Signature |  |

## Cables and Connectors(Non-accredited measurements)

| **Modular Cables** | | | | |
|---|---|---|---|---|
| **Description** | **Cable Count** | **Connector Count (Total)** | **Gauge** | **Cable Type** |
| ATX connector 20+4 pin (610mm) | 1 | 1 | 16-22AWG | Tinned Copper |
| 4+4 pin EPS12V (650mm) | 2 | 2 | 16AWG | Tinned Copper |
| 6+2 pin PCIe (650mm+150mm) | 3 | 6 | 16AWG | Tinned Copper |
| 6+2 pin PCIe (650mm) | 2 | 2 | 16AWG | Tinned Copper |
| 12+4 pin PCIe (700mm) (600W) | 2 | 2 | 16-26AWG | Tinned Copper |
| SATA (650mm+150mm+150mm+150mm) | 3 | 12 | 18AWG | Tinned Copper |
| 4-pin Molex (600mm+150mm+150mm) / FDD (+150mm) | 2 | 6 / 2 | 18AWG | Tinned Copper |

| Modular Cables | | | | |
|---|---|---|---|---|
| AC Power Cord (1360mm) - C19 coupler | 1 | 1 | 15AWG | - |

## Protection Features(Manufacturer)

| | |
|---|---|
| Over Power Protection | ✓ |
| Over Current (+12V) Protection | ✓ |
| Over Temperature Protection | ✓ |
| Short Circuit Protection | ✓ |
| Surge Protection | ✓ |
| Inrush Current Protection | ✓ |
| Fan Failure Protection | ✗ |

## Power Specifications

| Rail | | 3.3V | 5V | 12V | 5VSB | -12V |
|---|---|---|---|---|---|---|
| Max. Power | Amps | 25 | 25 | 108.3 | 3.5 | 0.3 |
| | Watts | 125 | | 1300 | 17.5 | 3.6 |
| Total Max. Power (W) | | 1300 | | | | |

## Parts Description

| General Data | |
|---|---|
| Manufacturer (OEM) | Guangzhou Pansheng Electronic Technology Co., Ltd |
| PCB Type | Double-Sided |
| **Primary Side** | |
| Transient Filter | 4x Y caps, 2x X caps, 2x CM chokes, 1x MOV |
| Inrush Protection | NTC Thermistor SCK205R0 ( 5Ohm @ 25°C) & Relay |
| Bridge Rectifier | 2x RS2505M-U3 (1000V, 25A @ 100°C) |
| APFC MOSFETs | 2x CRMicro  CRJQ99N65G2F  (650V, 30A @ 25°C, Rds(on): 0.90Ohm) |
| APFC Boost Diode | 1x Wolfspeed C6D10065A (650V, 10A @ 125°C) |

| | |
|---|---|
| Bulk Cap(s) | 1x Nippon Chemi-con (400V, 820µF, 2000h @ 105°C, KMW )<br>1x Rubycon(400V, 390µF, 3000h @ 105°C, MXK ) |
| Main Switchers | 4x Alpha and Omega Semiconductor AOTF160A60L (700V, 15A @ 100°C, Rds(on): 0.16Ohm) |
| IC Drivers | Texas Instruments UCC21541 |
| APFC Controller | Champion CU6510VC<br>Champion CM03AX (reducing no load consumption) |
| Resonant Controller | Champion CU6901VACC |
| Topology | Primary side: APFC, Full-Bridge & LLC Resonant Converter<br>Secondary side: [12V] Synchronous Rectification & [Minor Rails] DC-DC converters |
| **Secondary Side** | |
| +12V MOSFETs | 8x Nexperia PSMN1R0-40YLD (40V, 280A @ 25°C, Rds(on): 1.1mOhm) |
| 5V & 3.3V | DC-DC Converters: 8x Alpha and Omega Semiconductor GP4626<br>PWM Controller(s): 2x ON Semi NCP5230 |
| Filtering Capacitors | Electrolytic:<br>8x Toshin Kogyo (@ 105°C, AZ)<br>5x Nippon Chemi-con (@ 105°C, W)<br>2x Nippon Chemi-con (@ 105°C, KZE)<br>2x Rubycon (@ 105°C, ZLH)<br>Polymer:<br>31x Teapo |
| Supervisor IC | WIetrend WT7502R |
| Fan Power Switch | Niko Semiconductor PD515BA |
| Fan Model | Power Logic PLA14025B12H (140mm, 12V, 0.5A, Dual Ball Bearing Fan ) |
| **5VSB Circuit** | |
| Rectifier | PANJIT SVM1045V2B (45V, 10A) |
| Standby PWM Controller | Chipown PN8160 |

# Test Results

## Temperature & Compliance Info

| | |
|---|---|
| Temperature Range (°C /°F) | 28-32 / 82.4-89.6 |
| ErP Lot 3/6 Ready | ✓ |
| (EU) No 617/2013 Compliance | ✓ |
| ALPM (Alternative Low Power Mode) compatible | ✓ |
| ATX v3.1 PSU Power Excursion | ✓ |
| Conducted Emissions EN 55032 & CISPR 32 | Passed |

## Performance Summary 115V

| | |
|---|---|
| Accredited | |
| Average Efficiency (>1450 load combinations) | 89.952% |
| Average Noise Output (>1450 Load Combinations) | 37.91dBA |
| Average PF (>1450 Load Combinations) | 0.973 |
| Efficiency With 10W (≤500W) or 2% (>500W) Load | 74.856% |
| Standby Power Consumption | 0.0245W |
| Non-Accredited | |
| 12V Ripple (Full Load) | 39.99mV |
| 5V Ripple (Full Load) | 31.31mV |
| 3.3V Ripple (Full Load) | 26.63mV |
| 5VSB Ripple (Full Load) | 27.45mV |
| 12V Load Regulation | 0.21% |
| 5V Load Regulation | 0.52% |
| 3.3V Load Regulation | 0.54% |
| 5VSB Load Regulation | 1.30% |
| Inrush Current | 34.740A |

## Hold-Up Time & PWR_OK Signal

| | |
|---|---|
| Hold-Up Time (ms) | 24 |
| AC Loss to PWR_OK Hold Up Time (ms) | 19.4 |
| PWR_OK Inactive to DC Loss Delay (ms) | 4.6 |

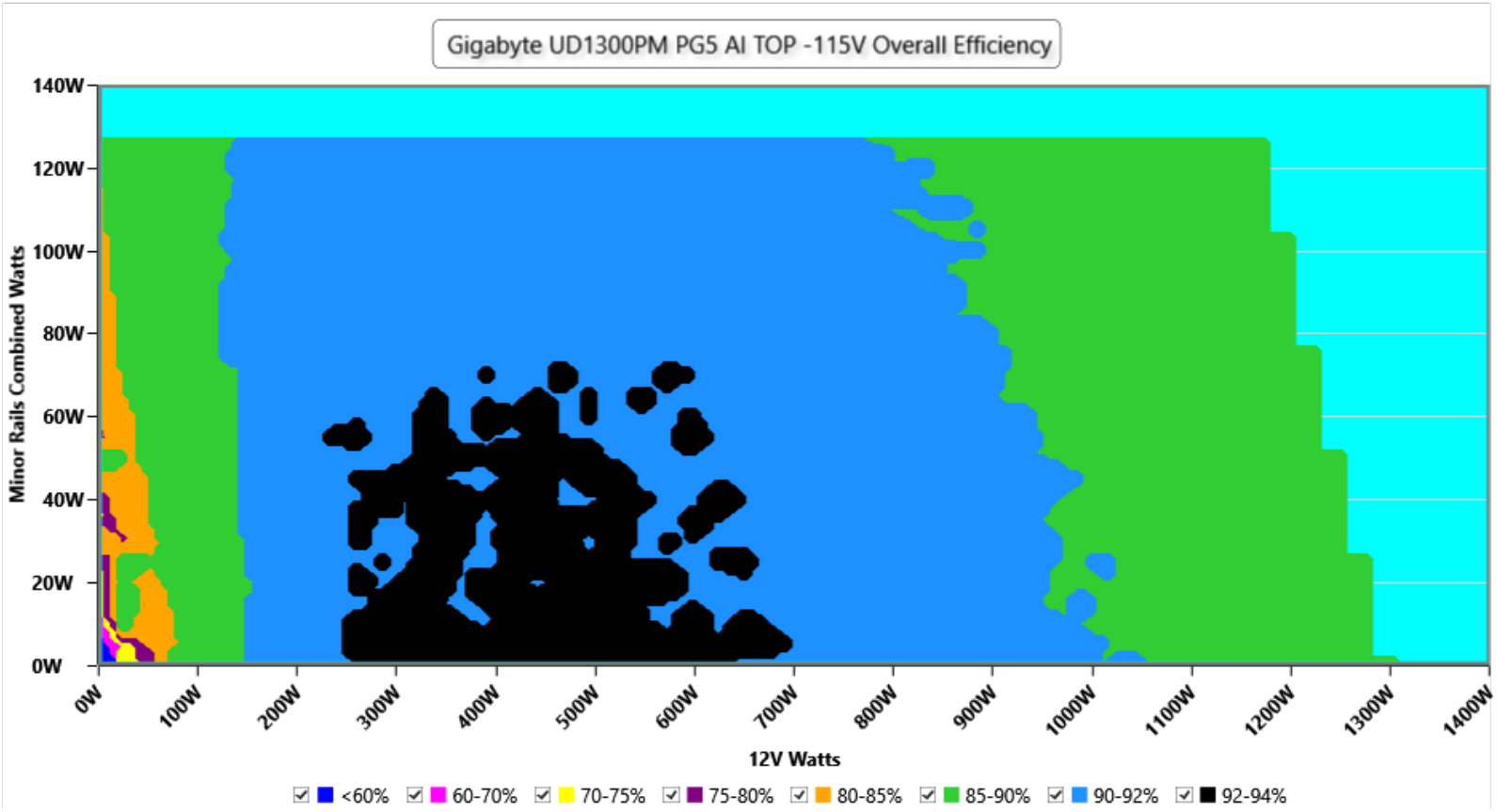
## Vampire Power

### Tables 115V

| Detailed Results | | | | | | |
|---|---|---|---|---|---|---|
| | Average | Min | Limit Min | Max | Limit Max | Result |
| Mains Voltage RMS: | 115.00 V | 114.97 V | 113.85 V | 115.03 V | 116.15 V | PASS |
| Mains Frequency: | 60.00 Hz | 59.96 Hz | 59.40 Hz | 60.01 Hz | 60.60 Hz | PASS |
| Mains Voltage CF: | 1.416 | 1.415 | 1.340 | 1.417 | 1.490 | PASS |
| Mains Voltage THD: | 0.13 % | 0.10 % | N/A | 0.16 % | 2.00 % | PASS |
| Real Power: | 0.025 W | -0.006 W | N/A | 0.050 W | N/A | N/A |
| Apparent Power: | 10.659 W | 10.631 W | N/A | 10.685 W | N/A | N/A |
| Power Factor: | 0.002 | N/A | N/A | N/A | N/A | N/A |

## Efficiency Graph

### 115V

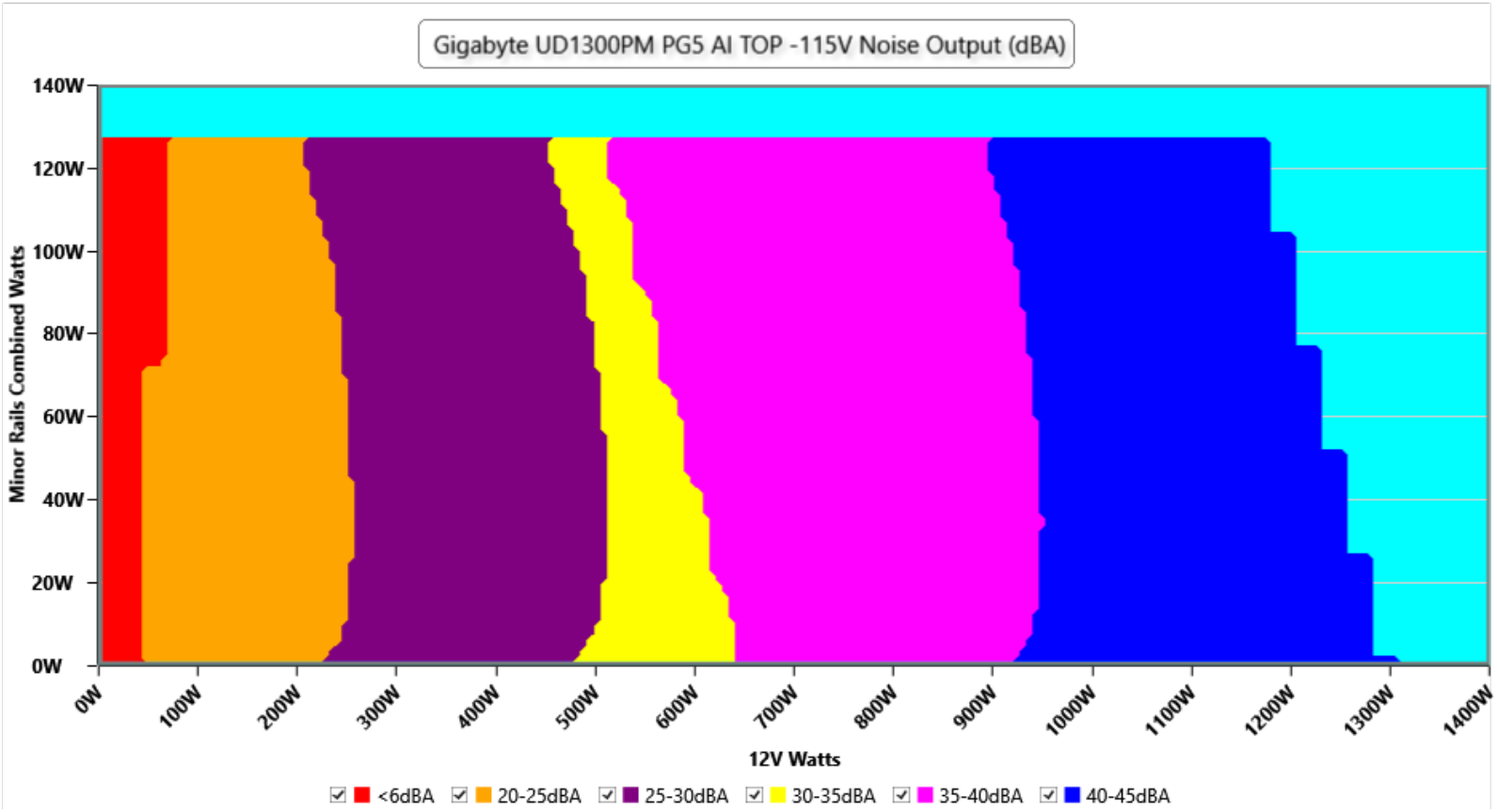



### INFO

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

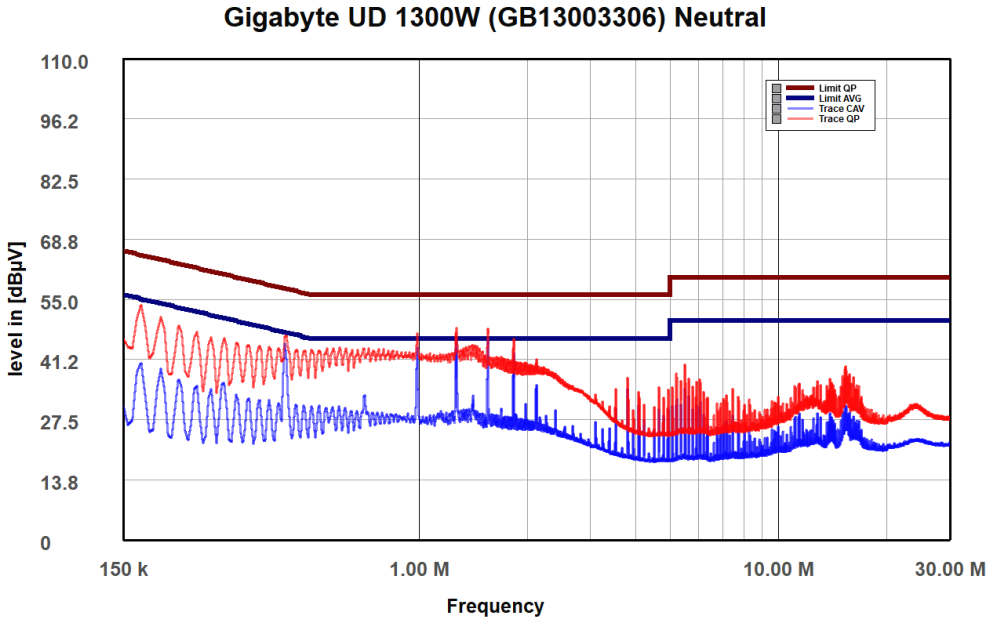
### 115V



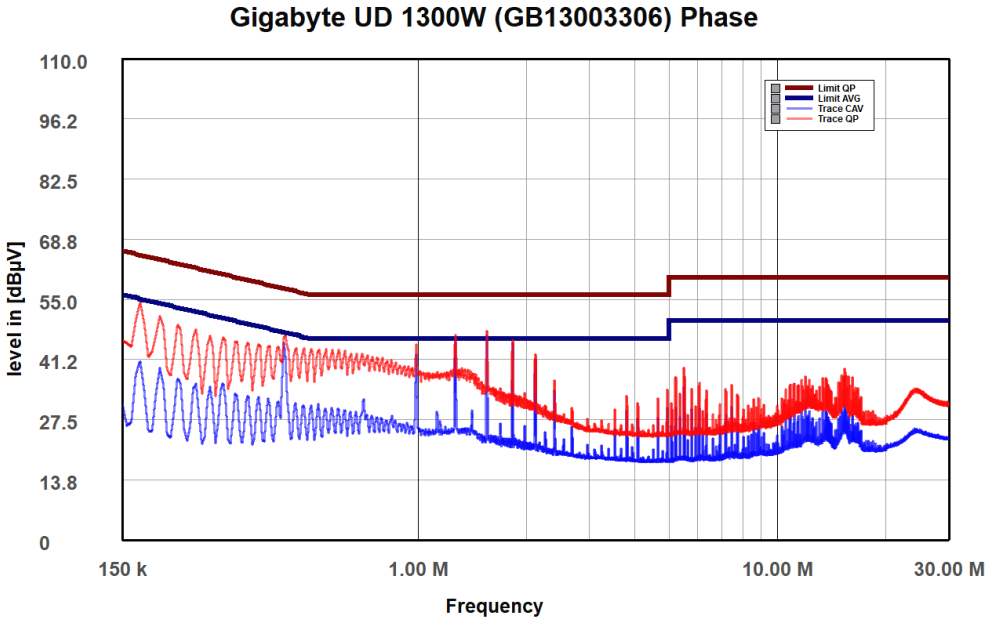

### INFO

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

## Conducted Emissions EN 55032 & CISPR 32



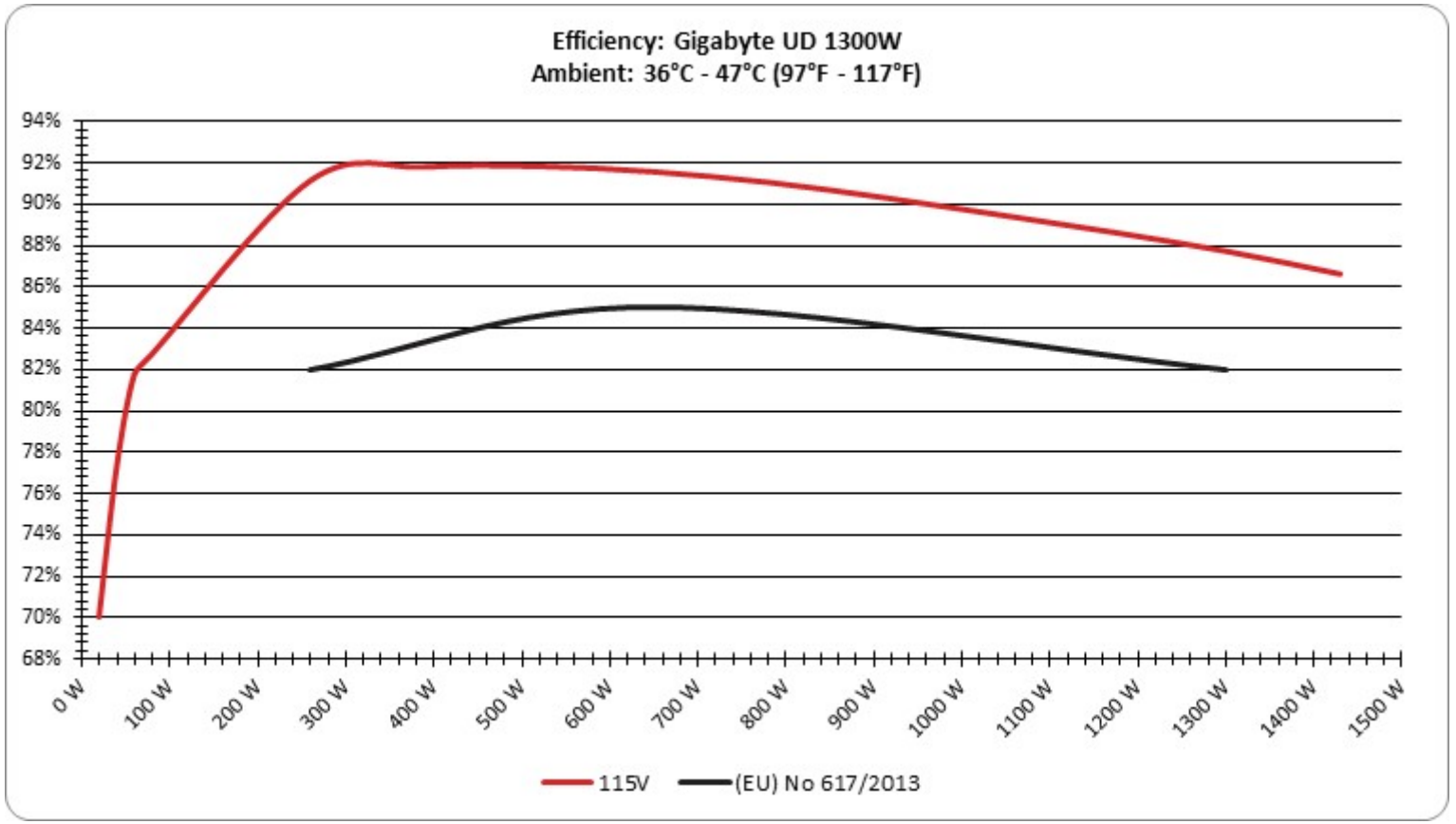

NEUTRAL




PHASE

## Indicative Performance

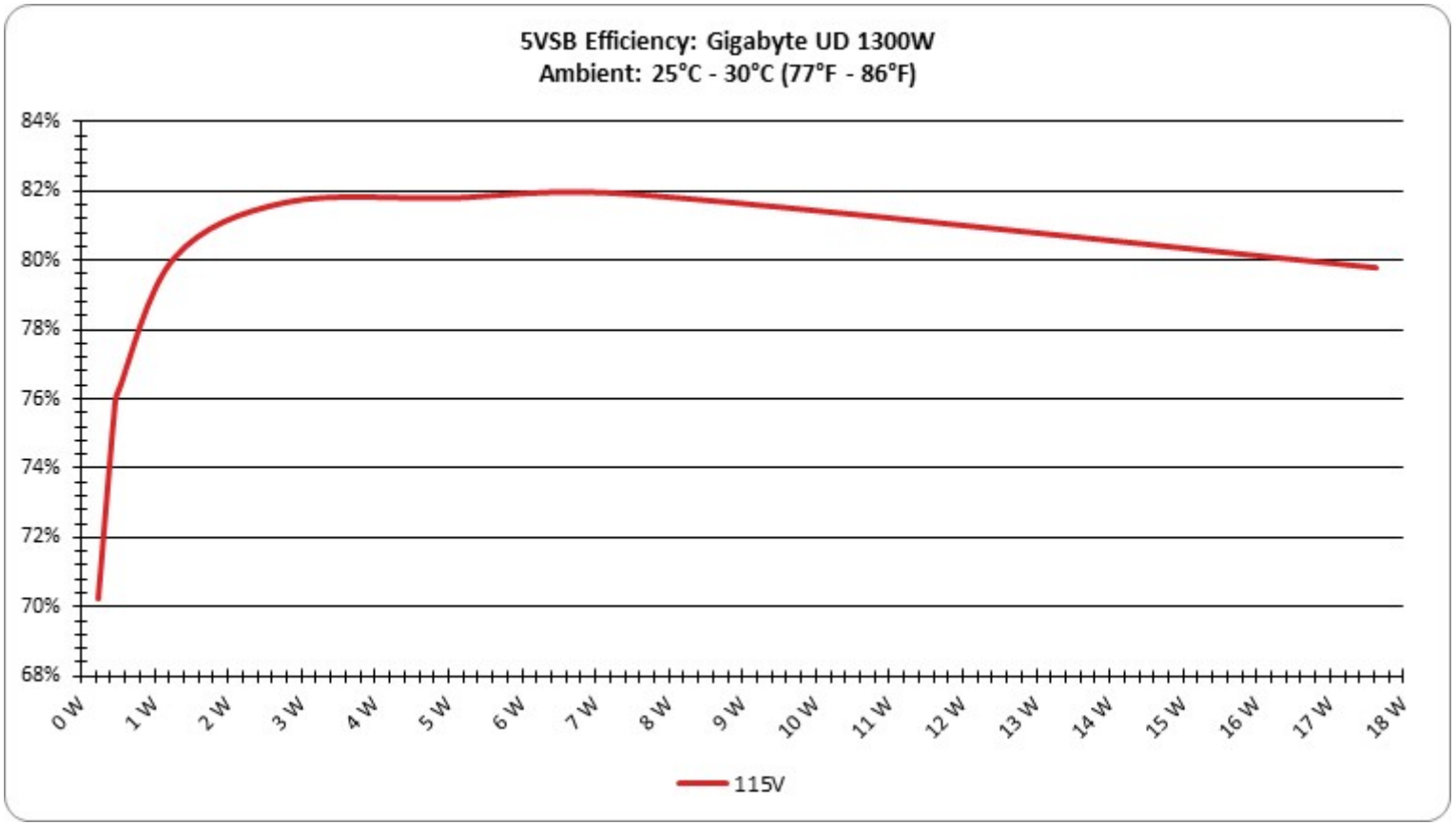
### Efficiency under high ambient temperature




**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

## 5VSB Efficiency (ERP LOT 3/6 & CEC) 115V

| Test # | 5VSB | DC/AC (Watts) | Efficiency | PF/AC Volts |
|---|---|---|---|---|
| **1** | **0.045A** | 0.228W | 70.252% | 0.03 |
| | 5.076V | 0.325W | | 114.88V |

| | | | | |
|---|---|---|---|---|
| **2** | **0.09A** | 0.457W | 75.893% | 0.055 |
| | 5.075V | 0.602W | | 114.88V |
| **3** | **0.1A** | 0.508W | 76.269% | 0.061 |
| | 5.075V | 0.666W | | 114.87V |
| **4** | **0.25A** | 1.268W | 80.084% | 0.136 |
| | 5.073V | 1.584W | | 114.87V |
| **5** | **0.55A** | 2.788W | 81.672% | 0.25 |
| | 5.07V | 3.414W | | 114.87V |
| **6** | **1A** | 5.065W | 81.797% | 0.351 |
| | 5.065V | 6.192W | | 114.86V |
| **7** | **1.5A** | 7.589W | 81.892% | 0.396 |
| | 5.059V | 9.267W | | 114.87V |
| **8** | **3.5A** | 17.621W | 79.79% | 0.488 |
| | 5.034V | 22.084W | | 114.86V |

## Protection Features

| | |
|---|---|
| OCP (Normal @ 27.1°C) | 12V: 139.80A (129.09%), 12.102V<br>5V: 44.9A (179.60%), 4.976V<br>3.3V: 42.6A (170.40%), 3.3V<br>5VSB: 4.4A (125.71%), 5.023V |
| OCP (Hot @ 41.8°C) | 12V: 126.20A (116.53%), 12.121V<br>5V: 44.8A (179.20%), 4.973V<br>3.3V: 43A (172.00%), 3.299V<br>5VSB: 4.3A (122.86%), 5.003V |
| OPP (Normal @ 27.6°C) | 1664.08W (128.01%) |
| OPP (Hot @ 42.1°C) | 1489.11W (114.55%) |
| OTP | ✓ (144°C @ 12V Heatsink) |
| SCP | 12V to Earth: ✓<br>5V to Earth: ✓<br>3.3V to Earth: ✓<br>5VSB to Earth: ✓<br>-12V to Earth: ✓ |
| PWR_OK | Proper Operation |

| | |
|---|---|
| UVP (Full Load @ 90V) | ✓ |
| UVP (No Damage @ 80V) | ✓ |
| Conducted Emissions EN55032 & CISPR 32 | ✓ |
| NLO | ✓ |
| Fan Failure Protection | ✗ |
| SIP | Surge: MOV<br>Inrush: NTC & Bypass Relay |

## Supplementary Tests (For Reference)

### Typical 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%** | **8.923A** | **1.99A** | **1.98A** | **0.988A** | 129.978 | 87.204% | 714 | 25.8 | 40.17°C | 0.843 |
| | 12.146V | 5.026V | 3.333V | 5.062V | 143.414 | | | | 41.47°C | 114.49V |
| **20%** | **18.870A** | **2.986A** | **2.973A** | **1.186A** | 259.927 | 91.175% | 782 | 28.5 | 40.77°C | 0.988 |
| | 12.138V | 5.022V | 3.33V | 5.057V | 285.085 | | | | 42.91°C | 114.78V |
| **30%** | **29.125A** | **3.485A** | **3.47A** | **1.386A** | 389.497 | 91.834% | 850 | 30.9 | 41.42°C | 0.995 |
| | 12.136V | 5.021V | 3.328V | 5.052V | 424.135 | | | | 44.39°C | 114.74V |
| **40%** | **39.416A** | **3.984A** | **3.967A** | **1.585A** | 519.456 | 91.871% | 932 | 33.4 | 41.56°C | 0.997 |
| | 12.133V | 5.019V | 3.327V | 5.048V | 565.413 | | | | 46°C | 114.69V |
| **50%** | **49.382A** | **4.983A** | **4.962A** | **1.785A** | 649.627 | 91.604% | 1035 | 35.9 | 42.5°C | 0.998 |
| | 12.132V | 5.017V | 3.326V | 5.043V | 709.106 | | | | 47.7°C | 114.66V |
| **60%** | **59.345A** | **5.982A** | **5.958A** | **1.985A** | 779.768 | 91.093% | 1159 | 38.6 | 42.96°C | 0.998 |
| | 12.132V | 5.015V | 3.324V | 5.038V | 856.07 | | | | 49.3°C | 114.6V |
| **70%** | **69.310A** | **6.982A** | **6.955A** | **2.186A** | 909.833 | 90.362% | 1298 | 40.9 | 43.25°C | 0.999 |
| | 12.131V | 5.013V | 3.322V | 5.033V | 1006.86 | | | | 50.98°C | 114.56V |
| **80%** | **79.274A** | **7.982A** | **7.951A** | **2.287A** | 1039.465 | 89.543% | 1460 | 43.5 | 43.87°C | 0.998 |
| | 12.130V | 5.01V | 3.32V | 5.029V | 1160.766 | | | | 53.12°C | 114.5V |
| **90%** | **89.632A** | **8.484A** | **8.436A** | **2.388A** | 1169.724 | 88.692% | 1607 | 45.5 | 44.18°C | 0.999 |
| | 12.130V | 5.009V | 3.318V | 5.025V | 1318.928 | | | | 54.64°C | 114.46V |

| Test | 12V | 5V | 3.3V | 5VSB | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|---|---|---|---|---|---|---|---|---|---|---|
| **100%** | **99.536A** | **8.987A** | **8.953A** | **3.494A** | 1299.44 | 87.766% | 1758 | 47.6 | 45.37°C | 0.999 |
| | 12.129V | 5.007V | 3.317V | 5.009V | 1480.539 | | | | 56.92°C | 114.4V |
| **110%** | **109.554A** | **9.991A** | **10.043A** | **3.496A** | 1429.655 | 86.654% | 1912 | 49.3 | 46.57°C | 0.999 |
| | 12.130V | 5.004V | 3.315V | 5.006V | 1649.852 | | | | 59.67°C | 114.34V |
| **CL1** | **0.115A** | **15.039A** | **14.937A** | **0A** | 126.295 | 83.086% | 1054 | 36.4 | 41.41°C | 0.882 |
| | 12.170V | 5.007V | 3.32V | 5.075V | 151.877 | | | | 52.62°C | 113.41V |
| **CL2** | **0.114A** | **24.965A** | **0A** | **0A** | 126.237 | 82.917% | 935 | 33.5 | 41.85°C | 0.869 |
| | 12.161V | 5.001V | 3.33V | 5.075V | 151.07 | | | | 49.49°C | 112.86V |
| **CL3** | **0.114A** | **0A** | **24.88A** | **0A** | 83.877 | 78.194% | 876 | 31.8 | 40.69°C | 0.835 |
| | 12.167V | 5.019V | 3.316V | 5.075V | 107.268 | | | | 47.59°C | 113.72V |
| **CL4** | **107.211A** | **0A** | **0A** | **0.001A** | 1299.873 | 88.375% | 1685 | 46.5 | 45.15°C | 0.999 |
| | 12.124V | 5.018V | 3.326V | 5.052V | 1470.922 | | | | 54.17°C | 114.41V |

The results above are not used in the certification process

## Light 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** | **1.222A** | **0.497A** | **0.495A** | **0.197A** | 19.994 | 70.042% | 0 | <6.0 | 39.32°C | 0.556 |
| | 12.151V | 5.033V | 3.335V | 5.074V | 28.557 | | | | 36.07°C | 114.86V |
| **40W** | **2.690A** | **0.696A** | **0.693A** | **0.296A** | 39.995 | 77.303% | 648 | 22.5 | 37.68°C | 0.635 |
| | 12.152V | 5.031V | 3.335V | 5.072V | 51.897 | | | | 38.15°C | 114.79V |
| **60W** | **4.158A** | **0.894A** | **0.891A** | **0.394A** | 59.995 | 81.791% | 672 | 23.7 | 38.02°C | 0.738 |
| | 12.153V | 5.03V | 3.334V | 5.071V | 73.354 | | | | 38.59°C | 114.95V |
| **80W** | **5.619A** | **1.093A** | **1.089A** | **0.493A** | 79.928 | 82.772% | 687 | 24.5 | 39.5°C | 0.799 |
| | 12.155V | 5.029V | 3.334V | 5.069V | 96.568 | | | | 40.8°C | 114.3V |

The results above are not used in the certification process

## Ripple Measurements 115V

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 10% Load | 29.51mV | 22.73mV | 20.57mV | 14.67mV | Pass |

| Test | 12V | 5V | 3.3V | 5VSB | Pass/Fail |
|---|---|---|---|---|---|
| 20% Load | 39.02mV | 24.53mV | 23.91mV | 14.21mV | Pass |
| 30% Load | 37.13mV | 25.50mV | 24.32mV | 15.03mV | Pass |
| 40% Load | 35.85mV | 26.43mV | 23.04mV | 15.85mV | Pass |
| 50% Load | 33.19mV | 23.87mV | 24.78mV | 15.50mV | Pass |
| 60% Load | 31.50mV | 26.79mV | 19.96mV | 16.32mV | Pass |
| 70% Load | 33.55mV | 27.77mV | 24.01mV | 21.60mV | Pass |
| 80% Load | 37.18mV | 29.77mV | 25.04mV | 23.19mV | Pass |
| 90% Load | 37.34mV | 29.00mV | 24.27mV | 24.68mV | Pass |
| 100% Load | 39.99mV | 31.31mV | 26.63mV | 27.45mV | Pass |
| 110% Load | 40.41mV | 31.31mV | 26.58mV | 27.56mV | Pass |
| Crossload1 | 29.36mV | 27.51mV | 22.32mV | 15.75mV | Pass |
| Crossload2 | 31.76mV | 26.28mV | 26.93mV | 14.93mV | Pass |
| Crossload3 | 20.97mV | 19.24mV | 20.32mV | 12.37mV | Pass |
| Crossload4 | 75.03mV | 23.15mV | 36.78mV | 19.70mV | Pass |

The results above are not used in the certification process

## Gigabyte GP-UD1300GM PG5




Top side




Power specifications label




Fan




PSU Internals

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

Cybenetics runs voluntary certification programs for power supplies - ETA for efficiency, LAMBDA for noise and SAFE for safety and correct operation - and for cooling products, with DELTA for chassis soundproofing and PHI for fan airflow and static pressure. THETA rates cooler performance on AMD AM5 and Intel LGA1851 outside ISO 17065 and accreditation scope

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