



## MSI MPG Ai1300TS PCIE5

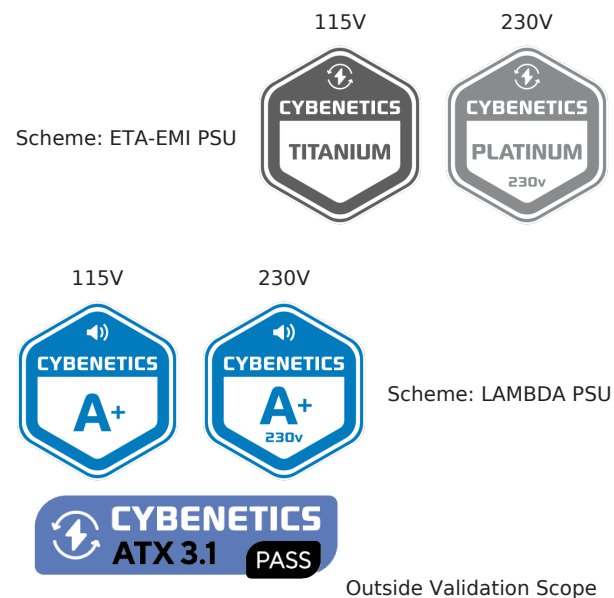
Serial Number -

Lab ID MS13003119

Certification ID 263118

Test Result Report ID: 26PS3118A

Certificate Issue Date: Feb 17, 2026



## 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                             | MSI                |
| Model                             | MPG Ai1300TS PCIE5 |
| OEM/ODM                           | CWT                |
| Serial Number                     | -                  |
| Product Specifications            |                    |
| Manufacturer-Provided Information |                    |
| Rated Voltage (Vrms)              | 100-240            |
| Rated Current (Arms)              | 10-15              |

|                                                   |                                                                                     |
|---------------------------------------------------|-------------------------------------------------------------------------------------|
| Rated Frequency (Hz)                              | 50-60                                                                               |
| Rated Power (W)                                   | 1300                                                                                |
| Operating Temperature (Continuous Full Load) (°C) | 0 - 40                                                                              |
| Type                                              | ATX12V                                                                              |
| Cable Design                                      | Fully Modular                                                                       |
| Warranty                                          | 12 years                                                                            |
| Cybenetics Measurements                           |                                                                                     |
| Dimensions (W x H x D)                            | 150 x 85 x 190mm                                                                    |
| Weight                                            | 2.30 kg (5.07 lb)                                                                   |
| Cooling                                           | 135mm Hydro Dynamic Bearing Fan (PLA13525S12H)                                      |
| Semi-Passive Operation                            | ✓ (selectable)                                                                      |
| Cybenetics Testing Information                    |                                                                                     |
| Lab ID                                            | MS13003119                                                                          |
| Date of receipt                                   | Jan 8, 2026                                                                         |
| Testing Date                                      | Feb 16, 2026                                                                        |
| Report Issued Date                                | Feb 17, 2026                                                                        |
| Engineer Name                                     | Georgios Theodoros Sarimpalas                                                       |
| 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 (600mm)        | 1           | 1                       | 18-22AWG | Tinned Copper |
| 4+4 pin EPS12V (650mm)                | 1           | 1                       | 18AWG    | Tinned Copper |
| 8 pin EPS12V (650mm)                  | 1           | 1                       | 18AWG    | Tinned Copper |
| 6+2 pin PCIe (600mm+150mm)            | 1           | 2                       | 18AWG    | Tinned Copper |
| 6+2 pin PCIe (600mm)                  | 5           | 5                       | 18AWG    | Tinned Copper |
| 12+4 pin PCIe (600mm) (600W)          | 2           | 2                       | 16-24AWG | Tinned Copper |
| SATA (500mm+150mm+150mm+150mm)        | 2           | 8                       | 18AWG    | Tinned Copper |
| 4-pin Molex (500mm+150mm+150mm+150mm) | 1           | 4                       | 18AWG    | Tinned Copper |

| Modular Cables                       |   |   |          |   |
|--------------------------------------|---|---|----------|---|
| USB 2.0 9-pin Header(610mm)          | 1 | 1 | 24-28AWG | - |
| AC Power Cord (1390mm) - C19 coupler | 1 | 1 | 14AWG    | - |

### 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  | 22   | 22 | 108.33  | 3    | 0    |
|                      | Watts | 120  |    | 1299.96 | 15   | 0    |
| Total Max. Power (W) |       | 1300 |    |         |      |      |

### Parts Description

| General Data       |                                                                                                                                                                                      |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Manufacturer (OEM) | CWT                                                                                                                                                                                  |
| PCB Type           | Double-Sided                                                                                                                                                                         |
| Primary Side       |                                                                                                                                                                                      |
| Transient Filter   | 5x Y caps, 2x X caps, 2x CM chokes, 1x MOV                                                                                                                                           |
| Inrush Protection  | NTC Thermistor SCK-25150 (15 Ohm @ 25°C) & Relay                                                                                                                                     |
| Bridge Rectifier   | 2x WeEn WNB2560M (600V, 25A @ 127°C)                                                                                                                                                 |
| APFC MOSFETs       | 2x Toshiba TK040N60Z1 (650V, 52A @ 25°C, Rds(on): 0.040 Ohm)<br>2x Toshiba TW015N65C (650V, 100A @ 25°C, Rds(on): 0.016 Ohm)<br>1x Sync Power SPN5003 (reducing no load consumption) |
| APFC Boost Diode   | 2x Vishay VS-3C10ET07T-M3 (650V, 10A @ 147°C)                                                                                                                                        |

|                                   |                                                                                                                                                                                           |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bulk Cap(s)                       | 2x Rubycon (420V, 560uF, 2000h @ 105°C, MXE )<br>1x Nippon Chemi-con (420V, 390uF, 2000h @ 105°C, KHE )                                                                                   |
| Main Switchers                    | 4x Alpha & Omega AOTF29S50 (600V, 18A @ 100°C, Rds(on): 0.15 Ohm)                                                                                                                         |
| Digital Controller                | 2x Texas Instruments UCD3138A                                                                                                                                                             |
| IC Driver                         | 2x Novosense NSi6602B-DSWR                                                                                                                                                                |
| Topology                          | Primary side: Semi-Digital, Interleaved PFC, Full-Bridge & LLC Resonant converter<br>Secondary side: Synchronous Rectification & DC-DC converters                                         |
| <b>Secondary Side</b>             |                                                                                                                                                                                           |
| +12V MOSFETs                      | 12x Infineon BSC014N06NS (60V, 182A @ 100°C, Rds(on): 1.45 mOhm)                                                                                                                          |
| 5V & 3.3V                         | DC-DC Converters: 4x UBIQ Semi QN3107M6N (30V, 70A @ 100°C, Rds(on): 2.6 mOhm)<br>PWM Controller(s): UPI-Semi uP3861P                                                                     |
| Filtering Capacitors              | Electrolytic:<br>5x Nippon Chemi-Con (@ 105°C, W)<br>3x Rubycon (4-10,000h @ 105°C, YXJ )<br>3x Rubycon (6-10,000h @ 105°C, ZLH )<br>Polymer:<br>36x Nippon Chemi-con, 13x Nichicon FPCAP |
| Supervisor IC                     | IN1S3151-SAG                                                                                                                                                                              |
| Fan Controller / Micro Controller | Nuvoton M252SD2AE                                                                                                                                                                         |
| Fan Model                         | Power Logic PLA13525S12H (135mm, 12V, 0.56A, Fluid Dynamic Bearing Fan)                                                                                                                   |
| <b>5VSB Circuit</b>               |                                                                                                                                                                                           |
| Rectifier                         | 1x Leadtrend LD8926AA1 Synchronous Rectification IC                                                                                                                                       |
| Standby PWM Controller            | On-Bright OB2365T                                                                                                                                                                         |

## 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                 | ✓                 |

## Performance Summary

### 115V

|                                                        |          |
|--------------------------------------------------------|----------|
| Accredited                                             |          |
| Average Efficiency (>1450 load combinations)           | 91.604%  |
| Average Noise Output (>1450 Load Combinations)         | 19.61dBA |
| Average PF (>1450 Load Combinations)                   | 0.991    |
| Efficiency With 10W ( $\leq 500W$ ) or 2% (>500W) Load | 73.775%  |
| Standby Power Consumption                              | 0.0254W  |
| Non-Accredited                                         |          |
| 12V Ripple (Full Load)                                 | 37.45mV  |
| 5V Ripple (Full Load)                                  | 17.93mV  |
| 3.3V Ripple (Full Load)                                | 18.69mV  |
| 5VSB Ripple (Full Load)                                | 16.67mV  |
| 12V Load Regulation                                    | 0.54%    |
| 5V Load Regulation                                     | 0.41%    |
| 3.3V Load Regulation                                   | 1.28%    |
| 5VSB Load Regulation                                   | 1.05%    |
| Inrush Current                                         | 11.400A  |

### 230V

|                                                        |          |
|--------------------------------------------------------|----------|
| Accredited                                             |          |
| Average Efficiency (>1450 load combinations)           | 92.763%  |
| Average Noise Output (>1450 Load Combinations)         | 19.61dBA |
| Average PF (>1450 Load Combinations)                   | 0.936    |
| Efficiency With 10W ( $\leq 500W$ ) or 2% (>500W) Load | 74.153%  |
| Standby Power Consumption                              | 0.1102W  |
| Non-Accredited                                         |          |
| 12V Ripple (Full Load)                                 | 37.85mV  |
| 5V Ripple (Full Load)                                  | 18.43mV  |
| 3.3V Ripple (Full Load)                                | 17.78mV  |

|                                  |                            |                            |
|----------------------------------|----------------------------|----------------------------|
| 5VSB Ripple (Full Load)          | 15.88mV                    |                            |
| 12V Load Regulation              | 0.59%                      |                            |
| 5V Load Regulation               | 0.41%                      |                            |
| 3.3V Load Regulation             | 1.16%                      |                            |
| 5VSB Load Regulation             | 1.09%                      |                            |
| Inrush Current                   | 23.710A                    |                            |
| 12V Transient Response (200%)    | 11.43V                     |                            |
| 5V Transient Response (200%)     | 5.007V                     |                            |
| 3.3V Transient Response (200%)   | 3.257V                     |                            |
| 5VSB Transient Response (200%)   | 4.880V                     |                            |
| Hold-Up Time & PWR_OK Signal     | 22.20ms                    |                            |
| AC Loss to PWR_OK Hold Up Time   | 18.40ms                    |                            |
| PWR_OK Inactive to DC Loss Delay | 3.80ms                     |                            |
| PSU Timings: T1 (20% / 100%)     | 89.0ms                     | 68.0ms                     |
| PSU Timings: T3 (20% / 100%)     | 126.0ms                    | 127.0ms                    |
| 12V OCP (29.1°C / 43.9°C)        | 129.00A (119.08%), 11.983V | 128.00A (118.16%), 11.986V |
| 5V OCP (29.1°C / 43.9°C)         | 27.7A (125.91%), 5.092V    | 27.8A (126.36%), 5.085V    |
| 3.3V OCP (29.1°C / 43.9°C)       | 27.7A (125.91%), 3.291V    | 27.7A (125.91%), 3.284V    |
| 5VSB OCP (29.1°C / 43.9°C)       | 4.7A (156.67%), 5.019V     | 4.7A (156.67%), 5.012V     |
| OPP (28.65°C / 45.15°C)          | 120.55%                    | 118.70%                    |

## Hold-Up Time & PWR\_OK Signal

|                                       |      |
|---------------------------------------|------|
| Hold-Up Time (ms)                     | 22.2 |
| AC Loss to PWR_OK Hold Up Time (ms)   | 18.4 |
| PWR_OK Inactive to DC Loss Delay (ms) | 3.8  |



## Tables

### 115V

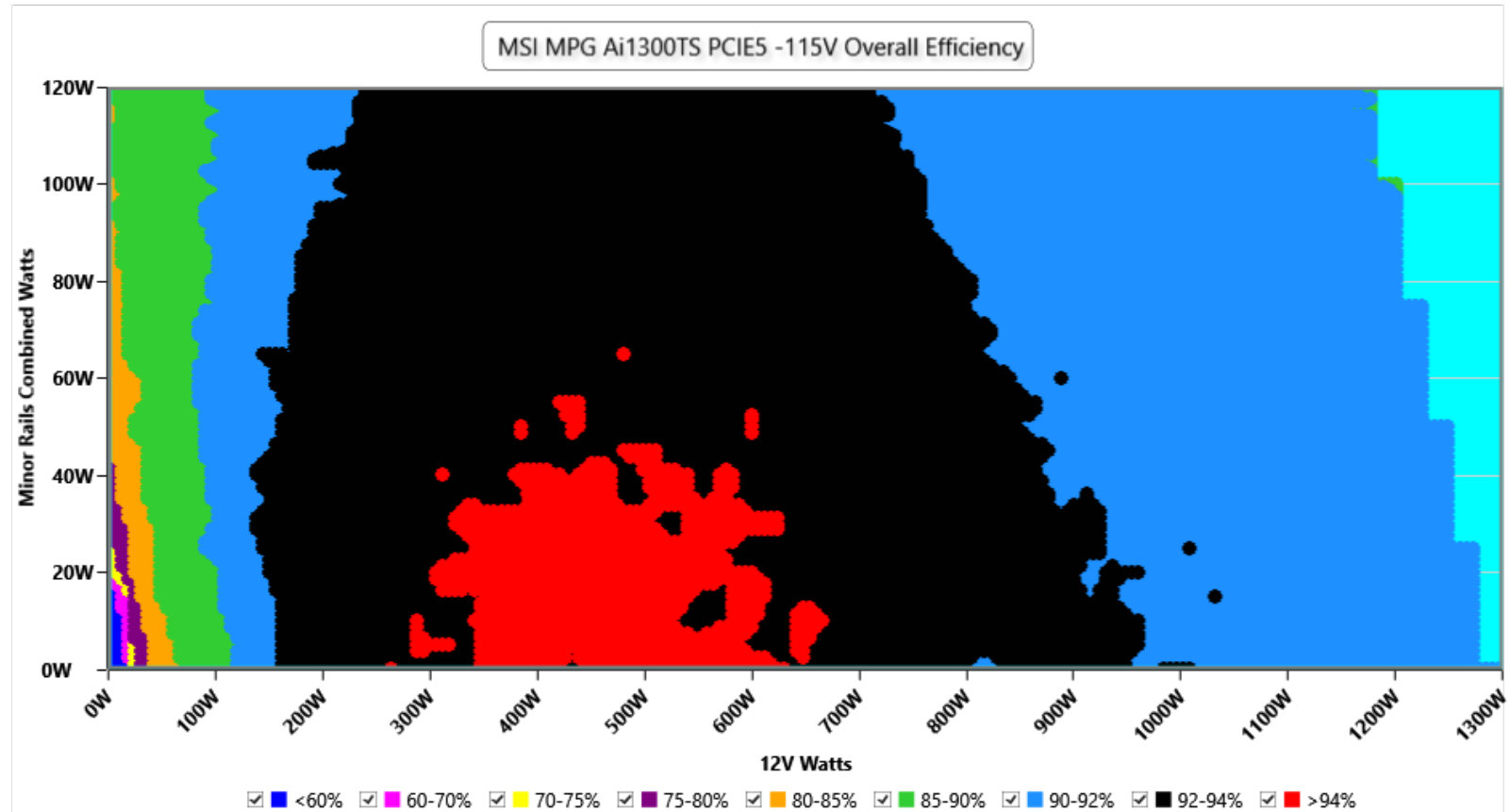
| Detailed Results   |          |          |           |          |           |        |
|--------------------|----------|----------|-----------|----------|-----------|--------|
|                    | Average  | Min      | Limit Min | Max      | Limit Max | Result |
| Mains Voltage RMS: | 115.06 V | 115.02 V | 113.85 V  | 115.07 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:  | 1.416    | 1.415    | 1.340     | 1.417    | 1.490     | PASS   |
| Mains Voltage THD: | 0.13 %   | 0.11 %   | N/A       | 0.15 %   | 2.00 %    | PASS   |
| Real Power:        | 0.025 W  | 0.012 W  | N/A       | 0.039 W  | N/A       | N/A    |
| Apparent Power:    | 14.961 W | 14.942 W | N/A       | 14.981 W | N/A       | N/A    |
| Power Factor:      | 0.001    | N/A      | N/A       | N/A      | N/A       | N/A    |

### 230V

| Detailed Results   |          |          |           |          |           |        |
|--------------------|----------|----------|-----------|----------|-----------|--------|
|                    | Average  | Min      | Limit Min | Max      | Limit Max | Result |
| Mains Voltage RMS: | 230.11 V | 230.07 V | 227.70 V  | 230.11 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:  | 1.415    | 1.415    | 1.340     | 1.416    | 1.490     | PASS   |
| Mains Voltage THD: | 0.14 %   | 0.13 %   | N/A       | 0.16 %   | 2.00 %    | PASS   |
| Real Power:        | 0.110 W  | 0.079 W  | N/A       | 0.148 W  | N/A       | N/A    |
| Apparent Power:    | 49.544 W | 49.512 W | N/A       | 49.574 W | N/A       | N/A    |
| Power Factor:      | 0.002    | N/A      | N/A       | N/A      | N/A       | N/A    |

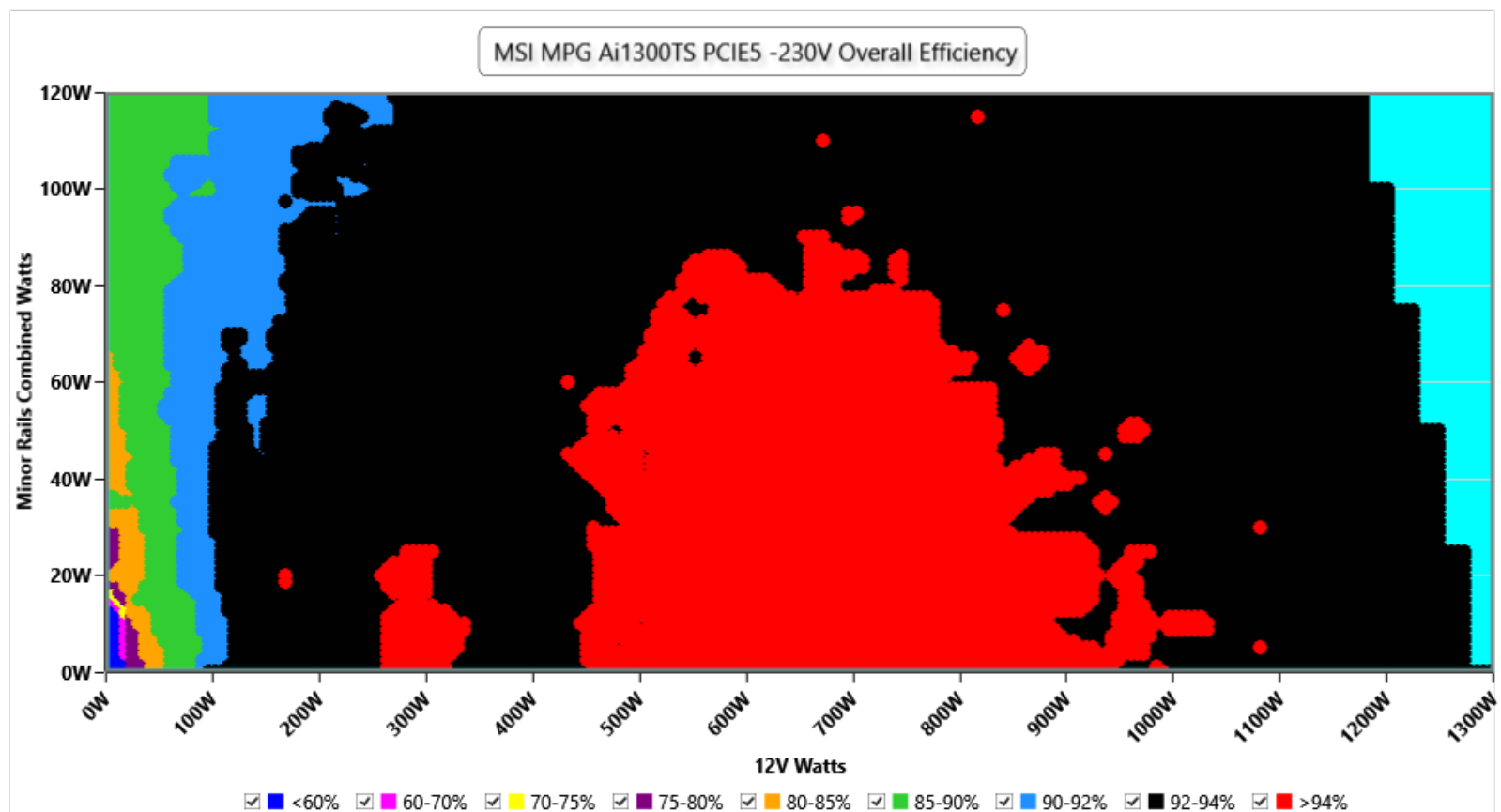
## Efficiency Graph

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

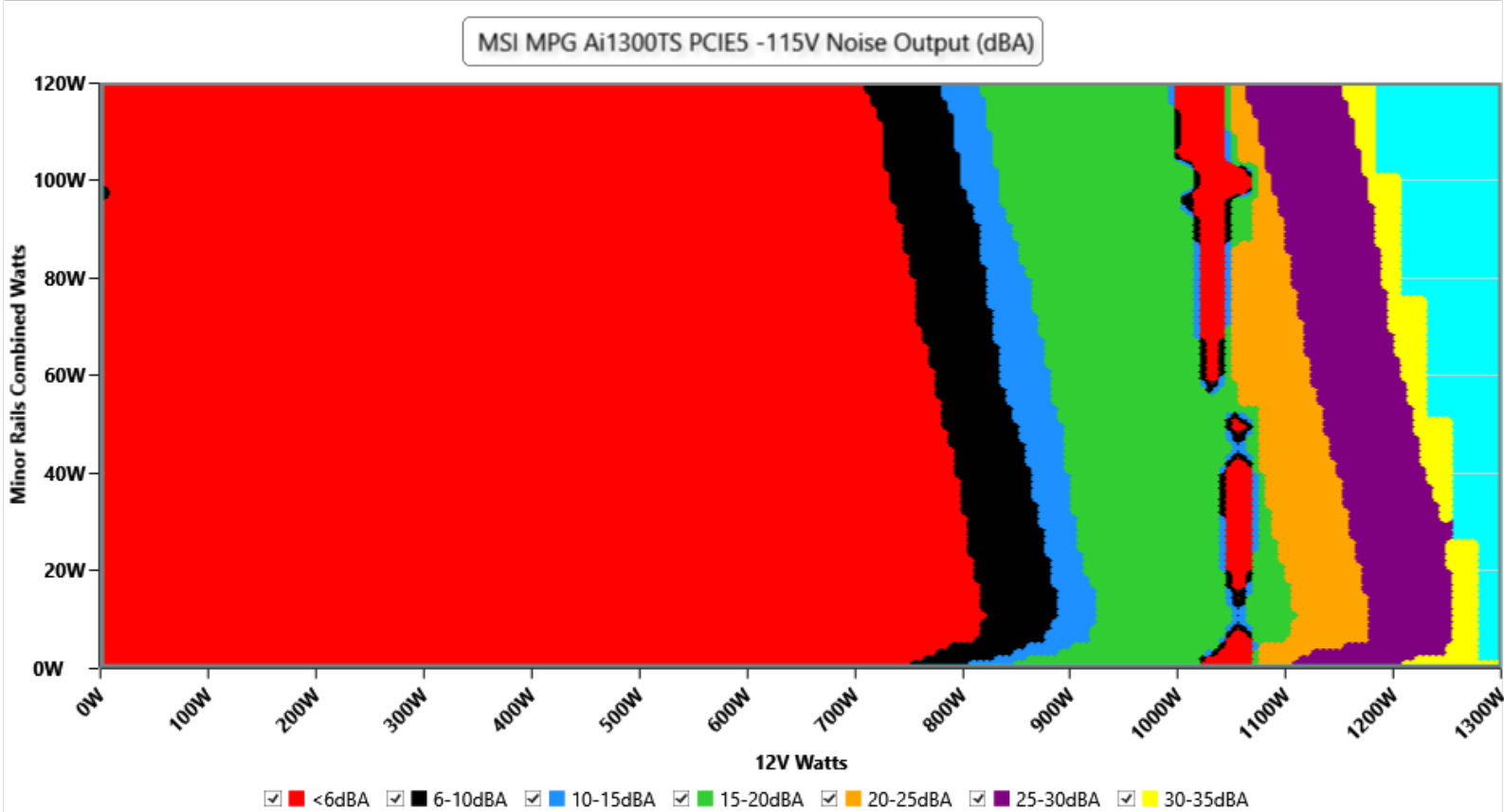


### INFO

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

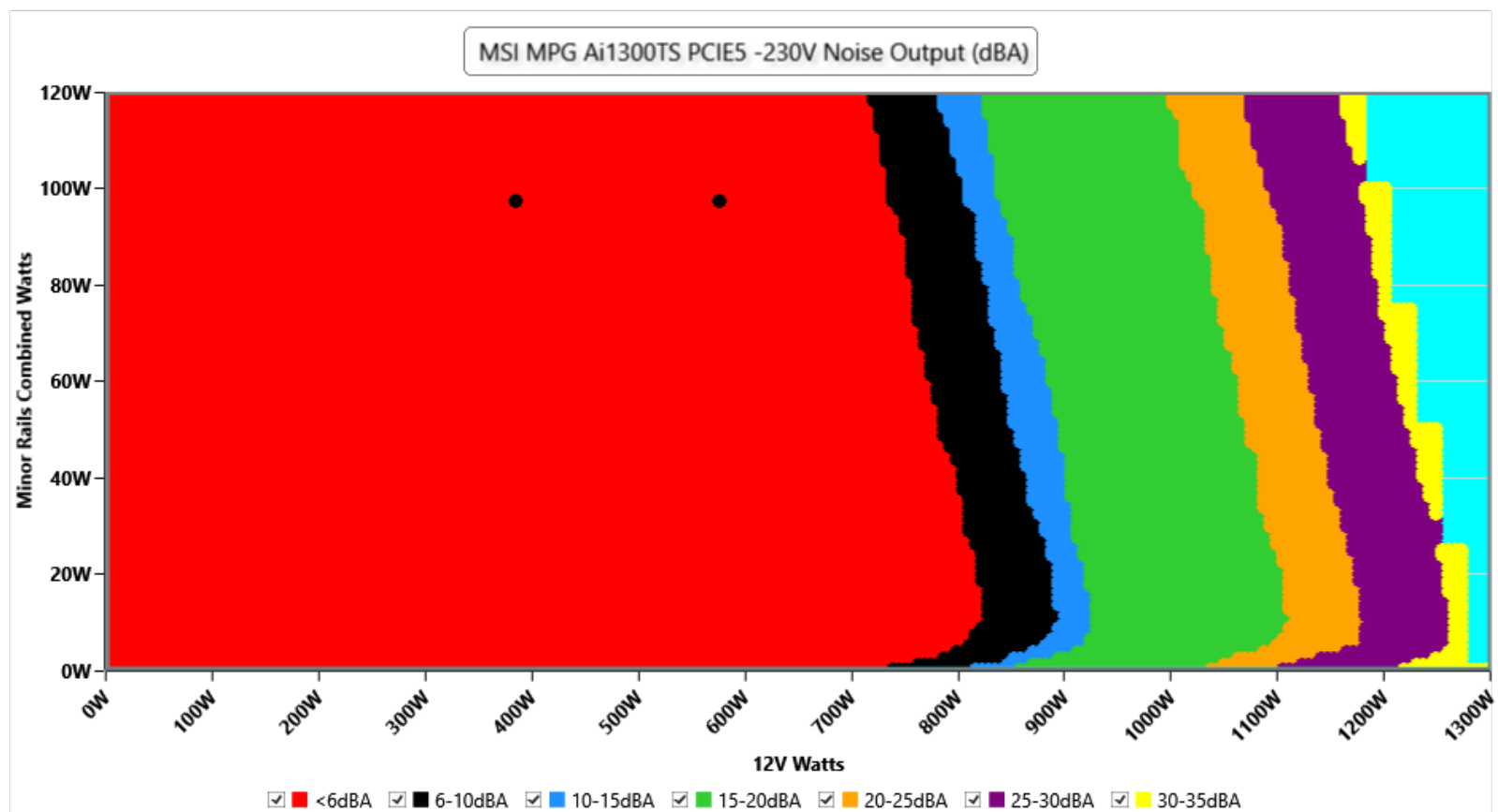
# Noise Graph

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

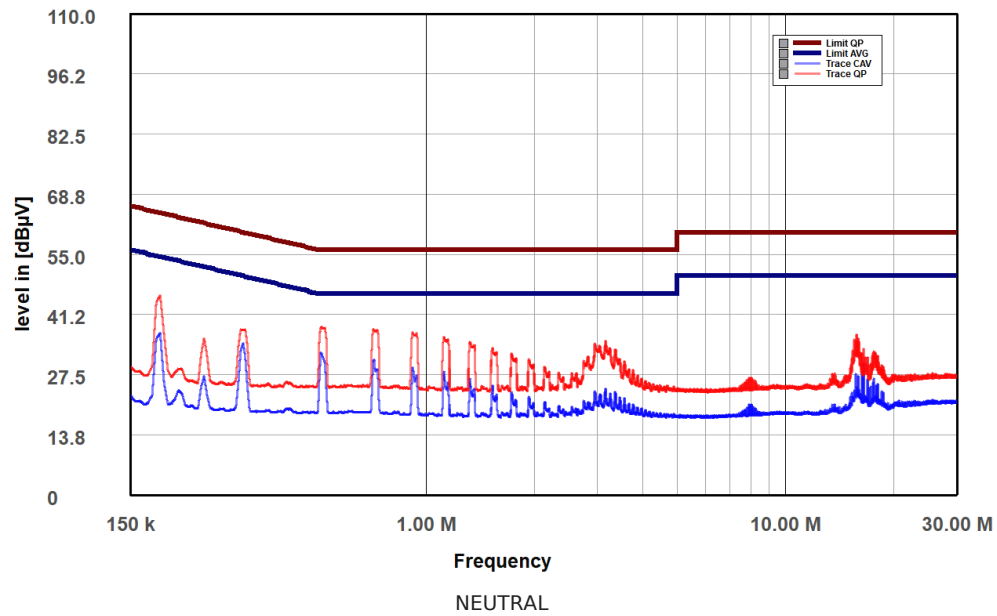


### INFO

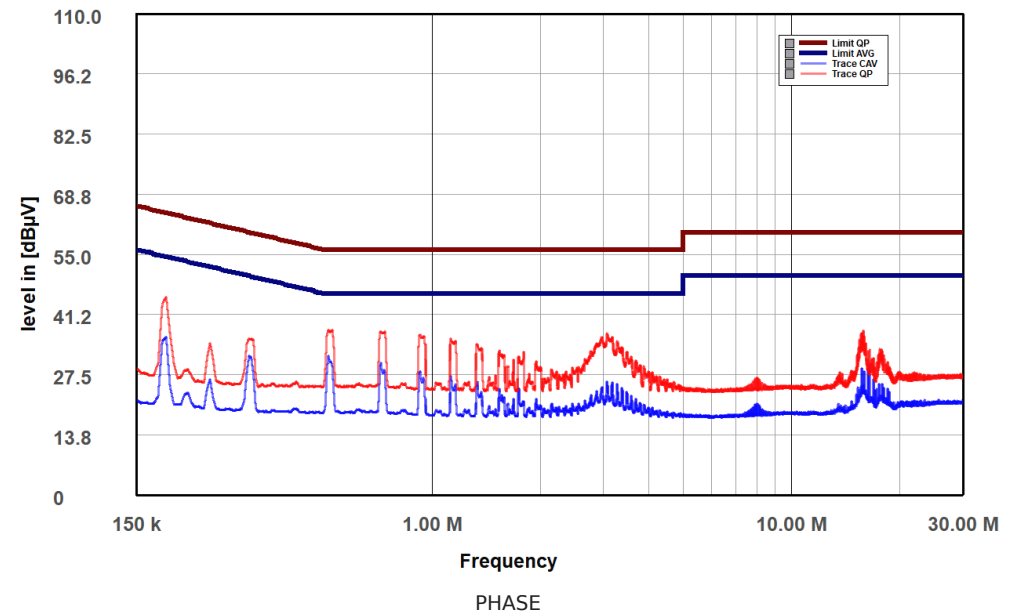
The PSU's noise in its entire operational range and under 30-32 °C ambient is depicted in this graph. The X axis represents the load on the +12V rail(s) while the Y axis is the load on the minor rails

## Conducted Emissions EN 55032 & CISPR 32

MSI MPG Ai1300TS PCIE5 (MS13003119) Neutral



MSI MPG Ai1300TS PCIE5 (MS13003119) Phase

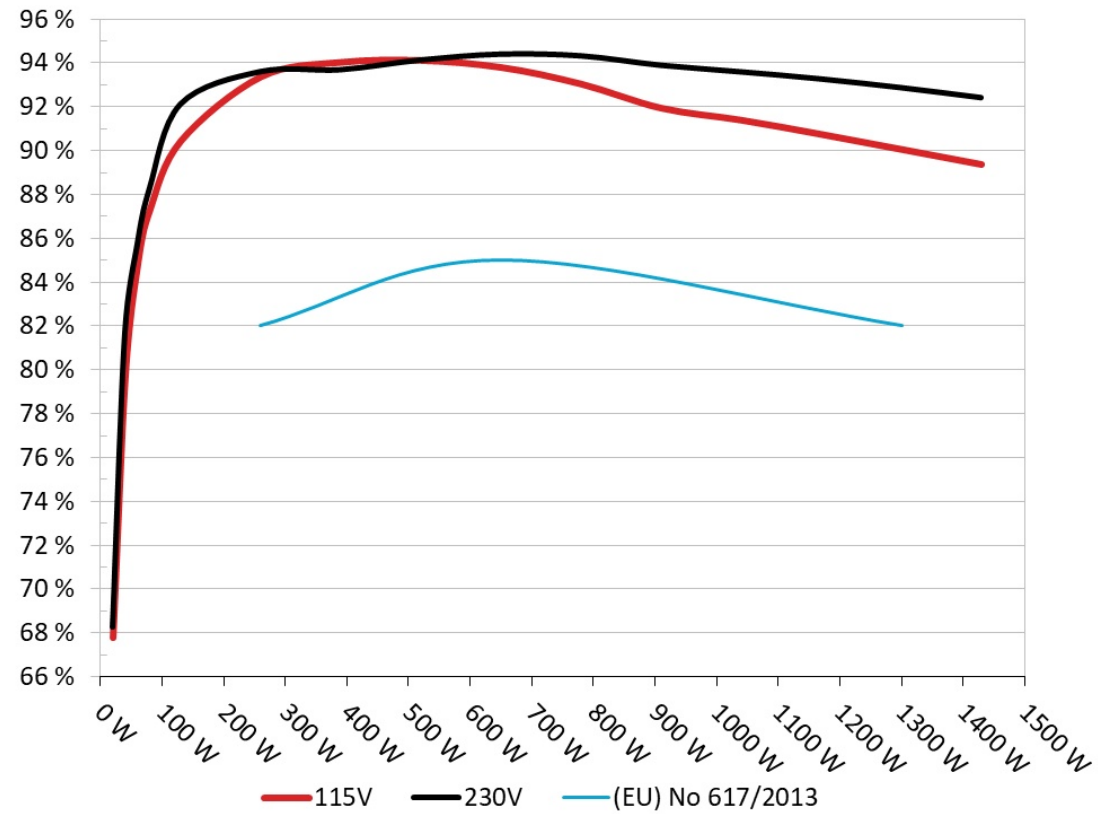


## Indicative Performance

### Efficiency under high ambient temperature

Efficiency: MSI MPG Ai1300TS PCIE5

Ambient: 36°C - 47°C (98.6°F - 116.6°F)



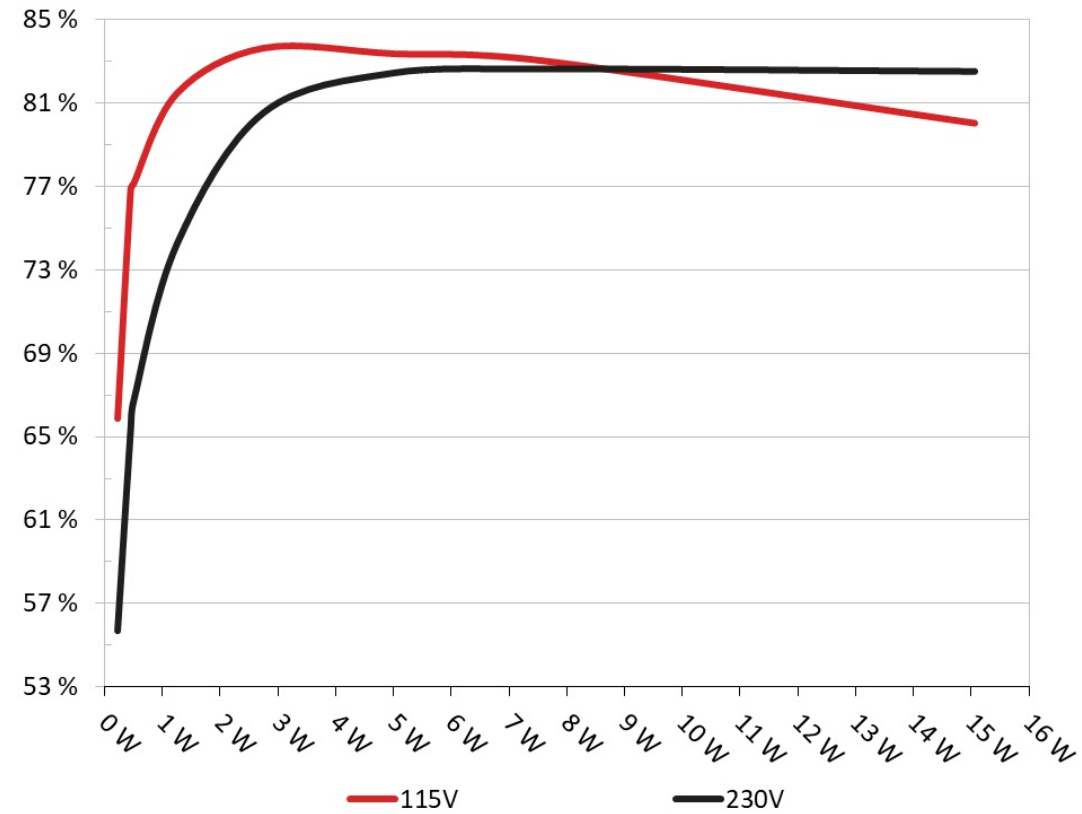
### INFO

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: MSI MPG Ai1300TS PCIE5

Ambient: 25°C - 30°C (77°F - 86°F)



### 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 | 0.225W        | 65.866%    | 0.002       |
|        | 5.005V | 0.036W        |            | 114.89V     |
| 2      | 0.09A  | 0.451W        | 76.846%    | 0.039       |
|        | 5.006V | 0.586W        |            | 114.89V     |
| 3      | 0.55A  | 2.754W        | 83.614%    | 0.199       |
|        | 5.008V | 3.294W        |            | 114.89V     |
| 4      | 1A     | 5.01W         | 83.341%    | 0.316       |
|        | 5.01V  | 6.012W        |            | 114.88V     |
| 5      | 1.5A   | 7.519W        | 83.027%    | 0.404       |
|        | 5.012V | 9.056W        |            | 114.88V     |
| 6      | 3A     | 15.059W       | 80.014%    | 0.531       |
|        | 5.019V | 18.82W        |            | 114.87V     |

#### 230V

| Test # | 5VSB   | DC/AC (Watts) | Efficiency | PF/AC Volts |
|--------|--------|---------------|------------|-------------|
| 1      | 0.045A | 0.225W        | 55.671%    | 0.008       |
|        | 5.005V | 0.408W        |            | 229.89V     |
| 2      | 0.09A  | 0.451W        | 65.347%    | 0.013       |
|        | 5.005V | 0.691W        |            | 229.9V      |
| 3      | 0.55A  | 2.754W        | 80.521%    | 0.064       |
|        | 5.007V | 3.42W         |            | 229.88V     |
| 4      | 1A     | 5.01W         | 82.425%    | 0.112       |
|        | 5.009V | 6.078W        |            | 229.89V     |
| 5      | 1.5A   | 7.518W        | 82.614%    | 0.161       |
|        | 5.011V | 9.101W        |            | 229.89V     |
| 6      | 3A     | 15.055W       | 82.496%    | 0.281       |
|        | 5.018V | 18.249W       |            | 229.88V     |

## Protection Features

|                                        |                                                                                                                                 |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| OCP (Normal @ 29.1°C)                  | 12V: 129.00A (119.08%), 11.983V<br>5V: 27.7A (125.91%), 5.092V<br>3.3V: 27.7A (125.91%), 3.291V<br>5VSB: 4.7A (156.67%), 5.019V |
| OCP (Hot @ 43.9°C)                     | 12V: 128.00A (118.16%), 11.986V<br>5V: 27.8A (126.36%), 5.085V<br>3.3V: 27.7A (125.91%), 3.284V<br>5VSB: 4.7A (156.67%), 5.012V |
| OPP (Normal @ 28.6°C)                  | 1567.11W (120.55%)                                                                                                              |
| OPP (Hot @ 45.1°C)                     | 1543.11W (118.70%)                                                                                                              |
| OTP                                    | ✓ (144°C @ 12V Heatsink)                                                                                                        |
| SCP                                    | 12V to Earth: ✓<br>5V to Earth: ✓<br>3.3V to Earth: ✓<br>5VSB 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%  | 8.960A   | 1.948A  | 1.949A  | 1A     | 129.997       | 90.417%    | 0               | <6.0              | 46.57°C        | 0.981       |
|      | 12.098V  | 5.132V  | 3.386V  | 5.002V | 143.791       |            |                 |                   | 40.24°C        | 114.84V     |
| 20%  | 18.943A  | 2.924A  | 2.928A  | 1.201A | 259.959       | 93.347%    | 0               | <6.0              | 48.36°C        | 0.988       |
|      | 12.092V  | 5.13V   | 3.382V  | 4.996V | 278.491       |            |                 |                   | 40.61°C        | 114.79V     |
| 30%  | 29.254A  | 3.413A  | 3.419A  | 1.403A | 389.577       | 94.006%    | 0               | <6.0              | 49.62°C        | 0.991       |
|      | 12.085V  | 5.128V  | 3.378V  | 4.99V  | 414.4         |            |                 |                   | 41.1°C         | 114.75V     |
| 40%  | 39.605A  | 3.901A  | 3.911A  | 1.605A | 519.54        | 94.092%    | 0               | <6.0              | 51.64°C        | 0.993       |
|      | 12.078V  | 5.126V  | 3.375V  | 4.984V | 552.178       |            |                 |                   | 41.74°C        | 114.71V     |
| 50%  | 49.644A  | 4.879A  | 4.896A  | 1.809A | 649.696       | 93.775%    | 0               | <6.0              | 53.97°C        | 0.995       |
|      | 12.070V  | 5.124V  | 3.37V   | 4.977V | 692.866       |            |                 |                   | 42.41°C        | 114.66V     |
| 60%  | 59.674A  | 5.858A  | 5.884A  | 2A     | 779.768       | 93.018%    | 436             | 9.4               | 42.87°C        | 0.996       |
|      | 12.066V  | 5.122V  | 3.365V  | 4.975V | 838.289       |            |                 |                   | 63.03°C        | 114.62V     |
| 70%  | 69.719A  | 6.838A  | 6.874A  | 2.213A | 909.924       | 91.918%    | 643             | 10.1              | 43.17°C        | 0.996       |
|      | 12.060V  | 5.119V  | 3.361V  | 4.971V | 989.923       |            |                 |                   | 64.46°C        | 114.56V     |
| 80%  | 79.781A  | 7.81A   | 7.853A  | 2.316A | 1039.51       | 91.369%    | 840             | 19.3              | 43.54°C        | 0.996       |
|      | 12.053V  | 5.121V  | 3.361V  | 4.965V | 1137.723      |            |                 |                   | 64.93°C        | 114.51V     |
| 90%  | 90.257A  | 8.31A   | 8.351A  | 2.42A  | 1169.765      | 90.719%    | 993             | 25                | 44.89°C        | 0.996       |
|      | 12.046V  | 5.114V  | 3.352V  | 4.959V | 1289.372      |            |                 |                   | 66.98°C        | 114.46V     |
| 100% | 100.483A | 8.803A  | 8.867A  | 3.028A | 1299.397      | 90.037%    | 1280            | 33                | 45.82°C        | 0.996       |
|      | 12.039V  | 5.112V  | 3.349V  | 4.954V | 1443.192      |            |                 |                   | 67.72°C        | 114.42V     |
| 110% | 110.652A | 9.786A  | 9.957A  | 3.032A | 1429.597      | 89.349%    | 1500            | 37.5              | 46.69°C        | 0.996       |
|      | 12.031V  | 5.109V  | 3.344V  | 4.947V | 1600.082      |            |                 |                   | 69.43°C        | 114.35V     |
| CL1  | 0.116A   | 14.106A | 14.269A | 0A     | 121.303       | 85.128%    | 404             | <6.0              | 41.1°C         | 0.981       |
|      | 12.092V  | 5.118V  | 3.342V  | 4.991V | 142.496       |            |                 |                   | 64.05°C        | 114.82V     |

| Test       | 12V             | 5V             | 3.3V           | 5VSB      | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------------|-----------------|----------------|----------------|-----------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>CL2</b> | <b>0.116A</b>   | <b>21.429A</b> | <b>0A</b>      | <b>0A</b> | 111.314       | 84.481%    | 402             | <6.0              | 40.45°C        | 0.98        |
|            | 12.095V         | 5.129V         | 3.364V         | 4.995V    | 131.762       |            |                 |                   | 59.93°C        | 114.83V     |
| <b>CL3</b> | <b>0.114A</b>   | <b>0A</b>      | <b>21.733A</b> | <b>0A</b> | 73.982        | 77.235%    | 400             | <6.0              | 41.01°C        | 0.968       |
|            | 12.097V         | 5.108V         | 3.34V          | 4.994V    | 95.821        |            |                 |                   | 56.89°C        | 114.85V     |
| <b>CL4</b> | <b>107.915A</b> | <b>0A</b>      | <b>0A</b>      | <b>0A</b> | 1299.914      | 90.46%     | 1321            | 34.1              | 45.54°C        | 0.996       |
|            | 12.046V         | 5.122V         | 3.376V         | 4.954V    | 1437.073      |            |                 |                   | 64.49°C        | 114.43V     |

The results above are not used in the certification process

## 230V

| Test       | 12V            | 5V            | 3.3V          | 5VSB          | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------------|----------------|---------------|---------------|---------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>10%</b> | <b>8.960A</b>  | <b>1.948A</b> | <b>1.948A</b> | <b>1A</b>     | 129.999       | 92.104%    | 0               | <6.0              | 49.05°C        | 0.809       |
|            | 12.098V        | 5.133V        | 3.388V        | 5.002V        | 141.142       |            |                 |                   | 40.22°C        | 229.88V     |
| <b>20%</b> | <b>18.945A</b> | <b>2.923A</b> | <b>2.926A</b> | <b>1.201A</b> | 259.962       | 93.587%    | 0               | <6.0              | 50.24°C        | 0.915       |
|            | 12.092V        | 5.131V        | 3.384V        | 4.996V        | 277.791       |            |                 |                   | 40.91°C        | 229.85V     |
| <b>30%</b> | <b>29.252A</b> | <b>3.412A</b> | <b>3.417A</b> | <b>1.403A</b> | 389.598       | 93.676%    | 0               | <6.0              | 51.65°C        | 0.931       |
|            | 12.086V        | 5.129V        | 3.38V         | 4.99V         | 415.9         |            |                 |                   | 41.5°C         | 229.84V     |
| <b>40%</b> | <b>39.604A</b> | <b>3.901A</b> | <b>3.909A</b> | <b>1.606A</b> | 519.577       | 94.117%    | 0               | <6.0              | 52.49°C        | 0.951       |
|            | 12.079V        | 5.128V        | 3.377V        | 4.983V        | 552.067       |            |                 |                   | 41.57°C        | 229.81V     |
| <b>50%</b> | <b>49.638A</b> | <b>4.878A</b> | <b>4.892A</b> | <b>1.809A</b> | 649.742       | 94.384%    | 0               | <6.0              | 52.37°C        | 0.958       |
|            | 12.072V        | 5.125V        | 3.373V        | 4.975V        | 688.416       |            |                 |                   | 42.41°C        | 229.79V     |
| <b>60%</b> | <b>59.681A</b> | <b>5.857A</b> | <b>5.878A</b> | <b>2A</b>     | 779.799       | 94.307%    | 443             | 8.4               | 42.69°C        | 0.963       |
|            | 12.065V        | 5.123V        | 3.369V        | 4.973V        | 826.815       |            |                 |                   | 57.85°C        | 229.77V     |
| <b>70%</b> | <b>69.741A</b> | <b>6.836A</b> | <b>6.867A</b> | <b>2.214A</b> | 909.943       | 93.876%    | 645             | 10.2              | 43.04°C        | 0.968       |
|            | 12.057V        | 5.121V        | 3.365V        | 4.969V        | 969.315       |            |                 |                   | 58.06°C        | 229.75V     |
| <b>80%</b> | <b>79.817A</b> | <b>7.815A</b> | <b>7.855A</b> | <b>2.318A</b> | 1039.538      | 93.58%     | 840             | 19.3              | 43.72°C        | 0.968       |
|            | 12.049V        | 5.118V        | 3.361V        | 4.962V        | 1110.885      |            |                 |                   | 58.6°C         | 229.73V     |
| <b>90%</b> | <b>90.300A</b> | <b>8.307A</b> | <b>8.34A</b>  | <b>2.421A</b> | 1169.776      | 93.255%    | 992             | 25                | 44.46°C        | 0.969       |
|            | 12.041V        | 5.116V        | 3.357V        | 4.957V        | 1254.369      |            |                 |                   | 59.29°C        | 229.7V      |

| Test        | 12V             | 5V             | 3.3V           | 5VSB          | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|-------------|-----------------|----------------|----------------|---------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>100%</b> | <b>100.533A</b> | <b>8.8A</b>    | <b>8.855A</b>  | <b>3.03A</b>  | 1299.409      | 92.859%    | 1278            | 32.9              | 45.05°C        | 0.971       |
|             | 12.033V         | 5.113V         | 3.354V         | 4.952V        | 1399.281      |            |                 |                   | 59.61°C        | 229.68V     |
| <b>110%</b> | <b>110.715A</b> | <b>9.783A</b>  | <b>9.942A</b>  | <b>3.034A</b> | 1429.603      | 92.407%    | 1499            | 37.5              | 46.42°C        | 0.972       |
|             | 12.025V         | 5.111V         | 3.349V         | 4.945V        | 1547.098      |            |                 |                   | 60.99°C        | 229.66V     |
| <b>CL1</b>  | <b>0.116A</b>   | <b>14.088A</b> | <b>14.224A</b> | <b>0A</b>     | 121.303       | 86.404%    | 405             | <6.0              | 41.73°C        | 0.815       |
|             | 12.091V         | 5.125V         | 3.353V         | 4.99V         | 140.392       |            |                 |                   | 58.6°C         | 229.88V     |
| <b>CL2</b>  | <b>0.116A</b>   | <b>21.364A</b> | <b>0A</b>      | <b>0A</b>     | 111.314       | 86.189%    | 402             | <6.0              | 40.24°C        | 0.795       |
|             | 12.094V         | 5.145V         | 3.362V         | 4.995V        | 129.14        |            |                 |                   | 55.59°C        | 229.88V     |
| <b>CL3</b>  | <b>0.115A</b>   | <b>0A</b>      | <b>21.683A</b> | <b>0A</b>     | 73.981        | 79.267%    | 400             | <6.0              | 40.31°C        | 0.703       |
|             | 12.095V         | 5.108V         | 3.348V         | 4.993V        | 93.332        |            |                 |                   | 53.8°C         | 229.89V     |
| <b>CL4</b>  | <b>107.977A</b> | <b>0A</b>      | <b>0A</b>      | <b>0A</b>     | 1299.966      | 93.269%    | 1320            | 34.1              | 45.15°C        | 0.971       |
|             | 12.039V         | 5.118V         | 3.373V         | 4.951V        | 1393.731      |            |                 |                   | 57.26°C        | 229.68V     |

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 |
|------------|---------------|---------------|---------------|-------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>20W</b> | <b>1.227A</b> | <b>0.487A</b> | <b>0.486A</b> | <b>0.2A</b> | 20            | 67.758%    | 0               | <6.0              | 39.57°C        | 0.779       |
|            | 12.103V       | 5.133V        | 3.392V        | 5.006V      | 29.532        |            |                 |                   | 36.33°C        | 114.87V     |
| <b>40W</b> | <b>2.701A</b> | <b>0.682A</b> | <b>0.681A</b> | <b>0.3A</b> | 40.001        | 79.707%    | 0               | <6.0              | 42.01°C        | 0.876       |
|            | 12.102V       | 5.133V        | 3.391V        | 5.005V      | 50.186        |            |                 |                   | 37.85°C        | 114.86V     |
| <b>60W</b> | <b>4.176A</b> | <b>0.876A</b> | <b>0.876A</b> | <b>0.4A</b> | 60.001        | 84.763%    | 0               | <6.0              | 43.48°C        | 0.916       |
|            | 12.102V       | 5.133V        | 3.39V         | 5.005V      | 70.788        |            |                 |                   | 38.56°C        | 114.86V     |
| <b>80W</b> | <b>5.645A</b> | <b>1.071A</b> | <b>1.071A</b> | <b>0.5A</b> | 79.944        | 87.279%    | 0               | <6.0              | 44.6°C         | 0.934       |
|            | 12.102V       | 5.133V        | 3.389V        | 5.004V      | 91.594        |            |                 |                   | 39.2°C         | 114.85V     |

The results above are not used in the certification process

## 230V

| Test       | 12V           | 5V            | 3.3V          | 5VSB        | DC/AC (Watts) | Efficiency | Fan Speed (RPM) | PSU Noise (dB[A]) | Temps (In/Out) | PF/AC Volts |
|------------|---------------|---------------|---------------|-------------|---------------|------------|-----------------|-------------------|----------------|-------------|
| <b>20W</b> | <b>1.226A</b> | <b>0.487A</b> | <b>0.486A</b> | <b>0.2A</b> | 19.998        | 68.296%    | 0               | <6.0              | 39.72°C        | 0.336       |
|            | 12.103V       | 5.134V        | 3.393V        | 5.003V      | 28.189        |            |                 |                   | 36.59°C        | 229.91V     |
| <b>40W</b> | <b>2.701A</b> | <b>0.682A</b> | <b>0.681A</b> | <b>0.3A</b> | 40            | 81.721%    | 0               | <6.0              | 43.59°C        | 0.549       |
|            | 12.102V       | 5.134V        | 3.393V        | 5.006V      | 49.098        |            |                 |                   | 37.11°C        | 229.9V      |
| <b>60W</b> | <b>4.176A</b> | <b>0.876A</b> | <b>0.876A</b> | <b>0.4A</b> | 60            | 85.708%    | 0               | <6.0              | 46.81°C        | 0.657       |
|            | 12.101V       | 5.134V        | 3.392V        | 5.005V      | 69.994        |            |                 |                   | 38.86°C        | 229.89V     |
| <b>80W</b> | <b>5.646A</b> | <b>1.071A</b> | <b>1.07A</b>  | <b>0.5A</b> | 79.943        | 88.268%    | 0               | <6.0              | 47.32°C        | 0.719       |
|            | 12.101V       | 5.134V        | 3.391V        | 5.004V      | 90.566        |            |                 |                   | 39.18°C        | 229.88V     |

The results above are not used in the certification process

## Ripple Measurements

## 115V

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| 10% Load   | 34.62mV | 22.63mV | 22.73mV | 18.78mV | Pass      |
| 20% Load   | 31.50mV | 18.27mV | 17.85mV | 14.83mV | Pass      |
| 30% Load   | 34.22mV | 18.94mV | 18.73mV | 15.03mV | Pass      |
| 40% Load   | 44.19mV | 19.40mV | 18.73mV | 16.32mV | Pass      |
| 50% Load   | 38.92mV | 18.63mV | 18.01mV | 16.01mV | Pass      |
| 60% Load   | 37.08mV | 19.04mV | 18.52mV | 16.21mV | Pass      |
| 70% Load   | 32.33mV | 19.35mV | 19.75mV | 18.11mV | Pass      |
| 80% Load   | 32.22mV | 17.91mV | 19.70mV | 18.42mV | Pass      |
| 90% Load   | 35.29mV | 19.09mV | 18.83mV | 18.78mV | Pass      |
| 100% Load  | 37.45mV | 17.93mV | 18.69mV | 16.67mV | Pass      |
| 110% Load  | 38.72mV | 18.10mV | 16.95mV | 16.64mV | Pass      |
| Crossload1 | 28.49mV | 17.44mV | 17.02mV | 13.01mV | Pass      |
| Crossload2 | 27.31mV | 20.37mV | 18.37mV | 14.83mV | Pass      |

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| Crossload3 | 24.75mV | 16.78mV | 18.73mV | 13.29mV | Pass      |
| Crossload4 | 37.57mV | 17.89mV | 18.36mV | 14.72mV | Pass      |

The results above are not used in the certification process

## 230V

| Test       | 12V     | 5V      | 3.3V    | 5VSB    | Pass/Fail |
|------------|---------|---------|---------|---------|-----------|
| 10% Load   | 29.87mV | 19.86mV | 19.34mV | 15.49mV | Pass      |
| 20% Load   | 28.90mV | 18.84mV | 18.11mV | 15.03mV | Pass      |
| 30% Load   | 37.95mV | 18.63mV | 18.27mV | 15.34mV | Pass      |
| 40% Load   | 28.79mV | 18.94mV | 18.88mV | 16.68mV | Pass      |
| 50% Load   | 29.20mV | 18.83mV | 18.88mV | 15.75mV | Pass      |
| 60% Load   | 32.22mV | 19.60mV | 19.50mV | 16.98mV | Pass      |
| 70% Load   | 32.83mV | 20.99mV | 21.49mV | 17.70mV | Pass      |
| 80% Load   | 34.42mV | 19.40mV | 19.86mV | 18.27mV | Pass      |
| 90% Load   | 36.06mV | 19.91mV | 20.68mV | 19.29mV | Pass      |
| 100% Load  | 37.85mV | 18.43mV | 17.78mV | 15.88mV | Pass      |
| 110% Load  | 40.17mV | 18.05mV | 19.07mV | 16.10mV | Pass      |
| Crossload1 | 29.74mV | 16.14mV | 17.61mV | 12.71mV | Pass      |
| Crossload2 | 30.48mV | 19.97mV | 18.11mV | 14.37mV | Pass      |
| Crossload3 | 28.49mV | 18.42mV | 21.91mV | 15.49mV | Pass      |
| Crossload4 | 39.50mV | 17.37mV | 17.52mV | 14.72mV | Pass      |

The results above are not used in the certification process

MSI MPG Ai1300TS PCIE5



Top side

| msi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            | MPG Ai1300TS PCIES |          |       |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|--------------------|----------|-------|--|
| AC INPUT / 交流輸入                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 100-240V~, 15-10A, 50-60Hz |                    |          |       |  |
| DC OUTPUT / 直流輸出                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | +5V                        | +3.3V              | +12V     | +5Vsb |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 22.0A                      | 22.0A              | 108.33A  | 3.0A  |  |
| TOTAL POWER / 總功率                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 120W                       |                    | 1299.96W | 15W   |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | 1300W                      |                    |          |       |  |
| <b>CAUTION! 警告 ATTENTION</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                    |          |       |  |
| <div>■ Do not open the power supply. (Do not open the power supply.) ■ Separately void if security seal is damaged, removed or torn. (If security seal is damaged, removed or torn, the power supply is void.) ■ 請勿開啟電源供應器。 (請勿開啟電源供應器。) ■ 本產品之安全規格係依據 IEC 60950-1 標準制定。 (本產品之安全規格係依據 IEC 60950-1 標準制定。) ■ This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</div> |                            |                    |          |       |  |
| <div>CE FC UK NOM NYCE EAC</div> <div>MSI MICRO-STAR INTERNATIONAL CO., LTD. MODEL / 型號 / 型号 / 型号: MS-72PUB Switching Power Supply / 電源供應器 / 電源供應器 製造商: 微星科技股份有限公司 / Micro-Star International Co., Ltd.</div> <div>MADE IN CHINA / 中國製造 / 中國製造 / 中國製造</div> <div>IS 13252(Part 1)/ IEC 60950-1 R-41204528 www.bis.gov.in</div>                                                                                                                                                                                                                                                                       |                            |                    |          |       |  |

Power specifications label



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