80 PLUS Verification and Testing Report

| TYPICAL EFFICIENCY (50% Load): | 92.31% |
|--------------------------------|--------|
| AVERAGE EFFICIENCY: | 90.87% |
| 80 PLUS COMPLIANT: | YES |



0.012

-Current

15

10

3

| Ecos ID # | SO-84 |
|---------------|----------------------------|
| Manufacturer | SUPER MICRO COMPUTER, INC. |
| Model Number | PWS-1K41P-1R |
| Serial Number | N/A |
| Year | 2009 |
| Туре | 1U |
| Test Date | 10/3/2009 |

| Rated Specifications | Value | Units |
|----------------------|---------|-------|
| Input Voltage | 100-240 | Volts |
| Input Current | 13.5-7 | Amps |
| Input Frequency | 50-60 | Hz |
| Rated Output Power | 1,400 | Watts |



- Voltage

0.006

Input Current and Voltage Waveforms

Time (s)

400

300

200 € 100

Voltage 0

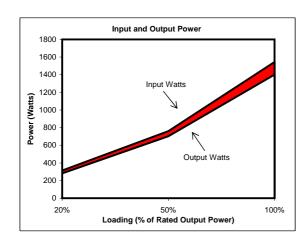
-200 -300 -400

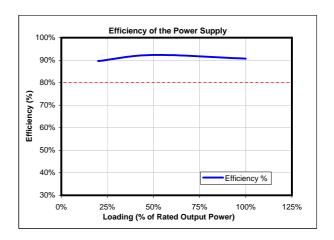
| Input Voltage | 100-240 | Volts | | | | | |
|--|---------|-------|--|--|--|--|--|
| Input Current | 13.5-7 | Amps | | | | | |
| Input Frequency | 50-60 | Hz | | | | | |
| Rated Output Power | 1,400 | Watts | | | | | |
| Note: All measurements were taken with input voltage at 230 V nominal and 60 Hz. | | | | | | | |

| I _{RMS} | PF | I _{THD} (%) | Load | Fraction | Input | External | DC Terminal Voltage (V)/ DC Load Current (A) | | A) | Output | |
|------------------|------|----------------------|------|----------|-------|-----------|--|-----------|----|--------|--------------|
| Α | | | (%) | of Load | Watts | Fan (W)** | 12V | 5Vsb | | Watts | Efficiency % |
| 0.80 | 0.90 | 31.05 | *10% | Low | 166 | 15.13 | 12.02/11.52 | 5.06/0.4 | | 140 | 84.47% |
| 1.44 | 0.95 | 19.00 | 20% | Light | 313 | 15.25 | 12.02/23.02 | 5.05/0.79 | | 281 | 89.59% |
| 3.35 | 0.99 | 8.80 | 50% | Typical | 760 | 15.13 | 12.02/57.53 | 5.03/1.99 | | 702 | 92.31% |
| 6.76 | 0.99 | 5.05 | 100% | Full | 1545 | 15.13 | 12.01/115.02 | 4.98/3.99 | | 1402 | 90.72% |

^{* 10%} load results are for informative purposes only and not included in certification requirements.

^{**} Fan power is not included in the efficiency calculations







These tests were conducted by a third party independent testing firm on behalf of the 80 PLUS® Program. 80 PLUS is a certification program to promote highly-efficient power supplies (greater than 80% efficiency in the active mode) in technology applications. http://www.80plus.org/

