# ENERGY STAR® *Power and Performance Data Sheet*

Model Name: MAGNIA T3350b

## System Characteristics

| | |
|---|---|
| Form Factor | 2 socket tower server |
| Available Processor Sockets | 2 |
| Available DIMM Slots / Max Memory Capacity | 12slots / 384GB max. |
| ECC and/or Fully Buffered DIMMs | DDR3-1600 ECC DIMMs |
| Available Expansion Slots | 5 slots |
| Minimum and Maximum # of Hard Drives | Min.: 1unit ; Max: 24units |
| Redundant Power Supply Capable? | Yes |
| Power Supply Make and Model | Delta Electronics DPS-800QB A |
| Power Supply Output Rating* (watts) | 800W |
| Minimum and Maximum # of Power Supplies | 2 |
| Input Power Range (AC or DC) | 115Vac and 230Vac |
| Power Supply Efficiency at Specified Loadings* | 87.40@10%, 91.67@20%, 94.09@50%, 91.95@100% |
| Power Supply Power Factor at Specified Loadings* | 0.89@10%,0.96 @20%, 0.99@50%, 0.99@100% |
| Operating Systems Supported | Microsoft Windows Server 2008 R2 Standard<br>Microsoft Windows Server 2008 R2 Enterprise etc. |
| Installed Operating System for Testing | Microsoft Windows Server 2008 R2 Standard |

**\* Note: Power supply information is for a single power supply only**

## System Configurations

| | Minimum | Typical | Maximum |
|---|---|---|---|
| Configuration ID | SYU4600A | SYU4600A | SYU4600B |
| Processor Information | Intel Xeon E5-2403<br>1.80GHz x2 | Intel Xeon E5-2403<br>1.80GHz x2 | Intel Xeon E5-2407<br>2.20GHz x2 |
| Memory Information | DDR3-1600<br>2GB x2 | DDR3-1600<br>32GB x6 | DDR3-1600<br>32GB x12 |
| Internal Storage | SATA 6Gbps 7200rpm<br>250GB x1 | SAS 6Gbps 10000rpm<br>900GB x3 | SAS 6Gbps 10000rpm<br>900GB x24 |
| I/O Devices | None | SAS Raid Card x1 | SAS Raid Card x3<br>SAS HBA card x1<br>Ethernet card x1 |
| Power Supply Number and Redundancy Configuration | Delta DPS-800QA<br>800W x2 | Delta DPS-800QA<br>800W x2 | Delta DPS-800QA<br>800W x2 |
| Management Controller or Service Processor Installed? | Yes | Yes | Yes |
| Other Hardware Features / Accessories | | | |

## Power Data

| | Minimum | Typical | Maximum |
|---|---|---|---|
| Idle Category (1S and 2S only) | Category D: Managed Dual Installed Processor (2P) Servers | | |
| ENERGY STAR Idle Power Allowance (1S and 2S only) | 150W | 574W | 1202W |
| Measured Idle Power (watts) | 77.2 | 117.0 | 318.3 |
| Power at Full Load* (watts) | 100.9 | 139.8 | 352.5 |
| Benchmark / Method Used for Full Load Test | Use SiSoftware Sandra Engineer (.NET Multi-Media) | | |
| Test Voltage and Frequency for Idle and Full Load Test | 230V / 60Hz | | |
| Range of Total Estimated Energy Usage ** (kWh/year) | 1,353 to 1,768 | 2,050 to 2,449 | 5,577 to 6,176 |
| Link to Detailed Power Calculator (if available) | | | |

**\* Note: Full load power represents the sustained, average power at 100% load of the given workload, and does not necessarily represent the absolute peak power or the highest average, sustained power possible for other workloads.**

**\*\* Note: Estimated kWh/year gives the absolute range of energy use a user could expect from continuous operation (24x7x365) and ranges from 100% Idle usage to 100% full load operation. The calculation also includes typical data center overhead at a ratio of 1 watt of overhead to every 1 watt of IT load (corresponding to a PUE of 2.0). Closer approximations may be found by using established power calculators and specific information about the intended operating environment (e.g., average time at Idle, data center PUE, etc.).**

## Power and Performance for Benchmark #1

| | Minimum | Typical | Maximum |
|---|---|---|---|
| Benchmark Used and Type of Workload | SiSoftware Sandra Engineer (.NET Multi-Media) | | |
| Avg. Power Measured During Benchmark Run | 100.9W | 139.8W | 352.5W |
| Benchmark Performance Score | 16.35Mpixel/s | 16.69Mpixel/s | 20.00Mpixel/s |
| Power Performance Ratio (perf score/avg. power) | 0.16 | 0.12 | 0.06 |
| Link to Full Benchmark Report (Where Available) | N/A | N/A | N/A |

*Benchmark #1*

## Power and Performance for Benchmark #2 (optional)

| | Minimum | Typical | Maximum |
|---|---|---|---|
| Benchmark Used and Type of Workload | | | |
| Avg. Power Measured During Benchmark Run | | | |
| Benchmark Performance Score | | | |
| Power Performance Ratio (perf score/avg. power) | | | |
| Link to Full Benchmark Report (Where Available) | | | |

*Benchmark #2*

# ENERGY STAR Power and Performance Data Sheet

Model Name: MAGNIA T3350b

### Power Saving Features

| | Enabled on Shipment | End-User Enabling Required |
|---|---|---|
| Processor Dynamic Voltage and Frequency Scaling | Yes | No |
| Processor or Core Reduced Power States | Yes | No |
| Power Capping | No | Yes |
| Variable Speed Fan Control Based on Power or Thermal Readings | Yes | No |
| Low Power Memory States | No | No |
| Low Power I/O States | No | No |
| Liquid Cooling Capability | No | No |
| Other1: | | |
| Other2: | | |
| Other3: | | |
| Other4: | | |

### Power and Temperature Measurement and Reporting

| | |
|---|---|
| Input Power Available & Accuracy? | Yes, +/- 5% for 80W~800W, +/-10W for ~100W |
| Input Air Temp Available & Accuracy? | Yes, +/- 2(˚c) |
| Processor Utilization Available? | Yes |
| Other Data Measurements Available & Accuracy? | |
| Compatible Protocols for Data Collection | IPMI |
| Averaging method and time period | Non Averaging, 1 sec. interval sampling. |

### Thermal Information *

| | Minimum | Typical | Maximum |
|---|---|---|---|
| Total Power Dissipation (watts) | 100.9W | 139.8W | 352.5W |
| Delta Temperature at Exhaust at Peak Temp. (˚C) | 2.2 | 4.1 | 7.6 |
| Airflow at Maximum Fan Speed (CFM) at Peak Temp. | 56.9 | 82.5 | 104.6 |
| Airflow at Nominal Fan Speed (CFM) at Nominal Temp. | 43.0 | 46.6 | 66.2 |

\* References: ASHRAE Extended Environmental Envelope Final August 1, 2008
Thermal Guidelines for Data Processing Environments, ASHRAE, 2004, ISBN 1-931862-43-5
Peak temperature is defined as 35 ˚C, Nominal Temperature is defined as 18 - 27 ˚C

### Notes

1. SPECpower_ssj2008 is a registered trademark of the Standard Performance Evaluation Corporation (SPEC). Benchmark results stated above reflect results published on XX/XX/XX. For the latest SPECpower_ssj2008 benchmark results, visit http://www.spec.org/power_ssj2008.

### ENERGY STAR Qualified Configurations
### Include specific information on ENERGY STAR Qualified SKUs or configurations

Qualified Configuration ID: SYU4600A, SYU4600B

### ENERGY STAR Qualified Configurations (Continued)
*Include specific information on ENERGY STAR Qualified SKUs or configurations*