ENERGY STAR® Power and Performance Data Sheet

Model Name: MAGNIA R1310b

System Characteristics

Form Factor	1 socket rack server
Available Processor Sockets	1
Available DIMM Slots / Max Memory Capacity	4slots / 32GB max.
ECC and/or Fully Buffered DIMMs	Yes
Available Expansion Slots	2 PCI-E 2.0
Minimum and Maximum # of Hard Drives	0 to 6
Redundant Power Supply Capable?	No
Power Supply Make and Model	Delta Electronics DPS-400AB-12 A
Power Supply Output Rating* (watts)	400W
Minimum and Maximum # of Power Supplies	1
Input Power Range (AC or DC)	100-200VAC
Power Supply Efficiency at Specified Loadings*	88.2%@20%, 91.0%@50%, 89.4%@100%
Power Supply Power Factor at Specified Loadings*	0.990@20%, 0.999@50%, 0.999@100%
Operating Systems Supported	Microsoft Windows Server 2008 R2 Standard 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	SYU4641B	SYU4641B	SYU4641C
Processor Information	Intel Xeon E3-1220v2 3.10GHz x1	Intel Xeon E3-1220v2 3.10GHz x1	Intel Xeon E3-1270v2 3.50GHz x1
Memory Information	DDR3-1600 2GB x1	DDR3-1600 8GB x2	DDR3-1600 8GB x4
Internal Storage	SATA 6Gbps 7200rpm 250GB x1	SAS 6Gbps 10000rpm 900GB x2	SAS 6Gbps 10000rpm 900GB x6
I/O Devices	None	SAS Raid Card x1	SAS Raid Card x1 Ethernet card x1
Power Supply Number and Redundancy Configuration	DPS-400AB-12 A 400W x1	DPS-400AB-12 A 400W x1	DPS-400AB-12 A 400W x1
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 B: Managed Single Installed Processor (1P) Servers		
ENERGY STAR Idle Power Allowance (1S and 2S only)	65.0	133.0	213.0
Measured Idle Power (watts)	38.4	58.5	100.8
Power at Full Load* (watts)	55.8	82.2	140.7
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)	673 to 978	1,025 to 1,440	1,766 to 2,465
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**

Power and Performance for Benchmark #1		**Minimum**	**Typical**	**Maximum**
Benchmark #1	Benchmark Used and Type of Workload	SiSoftware Sandra Engineer (.NET Multi-Media)		
	Avg. Power Measured During Benchmark Run	55.8	82.2	140.7
	Benchmark Performance Score	14.23Mpixel/s	15.19Mpixel/s	28.31Mpixel/s
	Power Performance Ratio (perf score/avg. power)	0.26	0.18	0.20
	Link to Full Benchmark Report (Where Available)	N/A	N/A	N/A

Power and Performance for Benchmark #2 (optional)		**Minimum**	**Typical**	**Maximum**
Benchmark #2	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)			

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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%
Input Air Temp Available & Accuracy?	Yes, +/- 2 degree 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)	55.8	82.2	140.7
Delta Temperature at Exhaust at Peak Temp. (˚C)	3.4	4.3	5.0
Airflow at Maximum Fan Speed (CFM) at Peak Temp.	59.3	53.2	54.5
Airflow at Nominal Fan Speed (CFM) at Nominal Temp.	15.0	16.7	26.3

* 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 Tempera

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

ENERGY STAR Qualified Configurations

Include specific information on ENERGY STAR Qualified SKUs or configurations

Qualified Configuration ID: SYU4640C, SYU4641B, SYU4641C, SYU4640E

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ENERGY STAR Qualified Configurations (Continued)

Include specific information on ENERGY STAR Qualified SKUs or configurations