

Enabling Efficiency Measurement

SPEC PTDaemon and Benchmark Methodology



Developed by the SPECpower Committee
<http://www.spec.org/power/>

SPEC Power Temperature Daemon (PTDaemon)

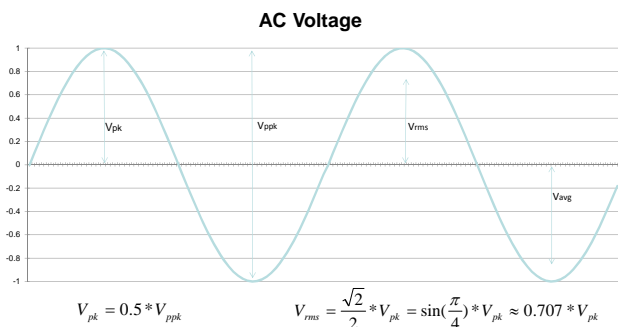
- **A Power and Temperature Measurement Harness**
 - Infrastructure software to connect, control, and collect data from power and temperature measurement devices
 - Enables standardized power and temperature measurements
 - Utilized by benchmark organizations to add energy efficiency to their benchmarks
- **Utilized by multiple products from different organizations**
 - SPECpower_ssj2008
 - SPECweb2009
 - SPECvirt_sc2013
 - SPEC OMP2012
 - SPEC ACCEL
 - TPC-Energy
 - Server Efficiency Rating Tool (SERT)
 - Chauffeur Worklet Development Kit (WDK)
 - VMmark
- **Power Analyzers Acceptance**
 - Defined acceptance process to assure that supported analyzers deliver data within reasonable accuracy criteria (http://www.spec.org/power/docs/SPEC-Power_Analyzer_Acceptance_Process.pdf)
 - Vendor neutral:
 - Chroma, Hioki, Infratek, Instek, Newtons4th, Voltech, Xitron, Yokogawa, ZES Zimmer

Power & Performance Benchmark Methodology

- **Best practices guide for benchmarks measuring performance and power**
http://www.spec.org/power/docs/SPEC-Power_and_Performance_Methodology.pdf

- **Purpose**

- Introduction to understanding the relationship between power and performance metrics in benchmarks
- For performance benchmark designers who want to integrate power measurement
- Applies to existing benchmarks and the design of new benchmarks
- AC and DC



- **Independently utilized**



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