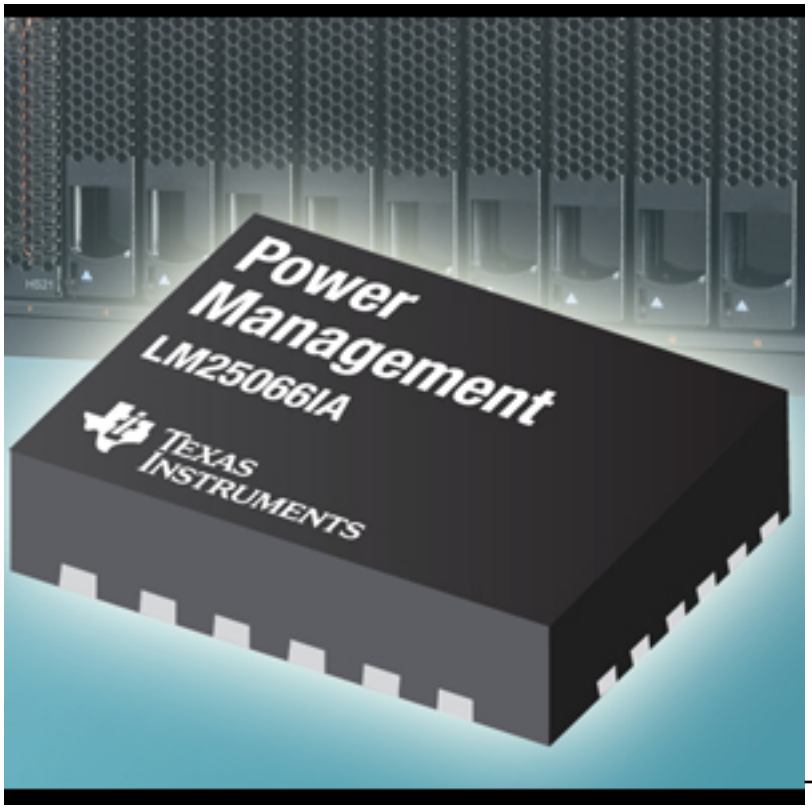
IC delivers most accurate power monitoring for Intel Node Manager capable server platforms



Texas Instruments introduced a new server monitoring, protection and control IC with on-chip PMBus support. The LM25066IA is fully compliant to Intel Node Manager 2.0 and provides designers of servers with a system power management and protection solution that interfaces directly with the Intel management engine. The LM25066IA delivers 1-percent current measurement accuracy and 2-percent power measurement accuracy over the server operating temperature range, enabling these dynamic server platforms to implement power capping schemes that minimize operating expense and improve reliability in data centers. For more information and samples, visit http://www.ti.com/lm25066IA-pr [1].

TI's LM25066IA integrates high-performance monitoring, protection and control blocks that precisely control and manage the electrical operating conditions of each blade in the chassis. It continuously supplies the system management host or management engine device with real-time power, voltage, current, temperature and fault data for each blade subsystem. The parametric and fault data is delivered through the system management bus (SMBus) communications interface using the industry-standard PMBus protocol and the host's system diagnostic and optimization routines use the data to limit the power to each blade subsystem, or node. Using this scheme, data center operators are able to minimize the overall power consumption of the server equipment while increasing system reliability by keeping the servers operating within their optimal operating power range.

TI also offers the LM25066I [2] that delivers 2.4-percent current measurement accuracy and 3-percent power measurement accuracy.

The LM25066IA and LM25066I join TI's system protection and management family that includes the LM5066 [3] and LM5064 [4] for up to +80V and -80V applications respectively, and the LM25056 [5], LM25056A [6] and LM5056 [7] for up to 17V and 80V applications respectively. For more information on all of TI's system protection and hot swap controller products, visit www.ti.com/hotswap-pr [8].

Key features and benefits of the LM25066IA PMBus server power management and protection IC

- Power limiting allows the use of smaller, less expensive FETs while maintaining reliability.
- Industry's best current and power measurement accuracy (one-percent and two-percent respectively) delivers up to three times more accurate power consumption data versus competitive solutions.
- Simultaneous sampling of voltage and current allows measurement of true real-time power consumption under widely varying load conditions.
- Energy accumulator reports total power consumed over a programmable time period.

Do more with TI Digital Power

The LM25066IA and LM25066I extend TI's portfolio of digital power products for managing power in data center applications. The LM25066IA and LM25066I can be combined with the TPS40400 [9] and TPS40422 [10] analog PMBus controllers or the UCD9K family of programmable digital PMBus controllers for 12-V server, storage and networking systems, enabling data center equipment manufacturers to implement complete digital power systems using the same industry-standard PMBus interface. See www.ti.com/digitalpower [11].

Packaging, pricing and availability

The LM25066IA and LM25066I are offered in a 4-mm by 5-mm, 24-lead LLP [12] package and are priced at US$2.95 and US$2.45 respectively, in 1,000-unit quantities. The LM25066IA and LM25066I are sampling now with full production volumes scheduled for October 2012.

www.ti.com [13]

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http://www.ecnmag.com/products/2012/09/ic-delivers-most-accurate-power-monitoring-intel-node-manager-capable-server-platforms?qt-recent_content=0

Links:

[1] http://nsc.pr-optout.com/Url.aspx?517623x71670x-342441
[2] http://nsc.pr-optout.com/Url.aspx?517623x71668x-204387
[3] http://nsc.pr-optout.com/Url.aspx?517623x71667x-135363
[4] http://nsc.pr-optout.com/Url.aspx?517623x71666x-66341
[5] http://nsc.pr-optout.com/Url.aspx?517623x71665x-586609
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[12] http://nsc.pr-optout.com/Url.aspx?517623x71659x-172525
[13] http://www.ti.com