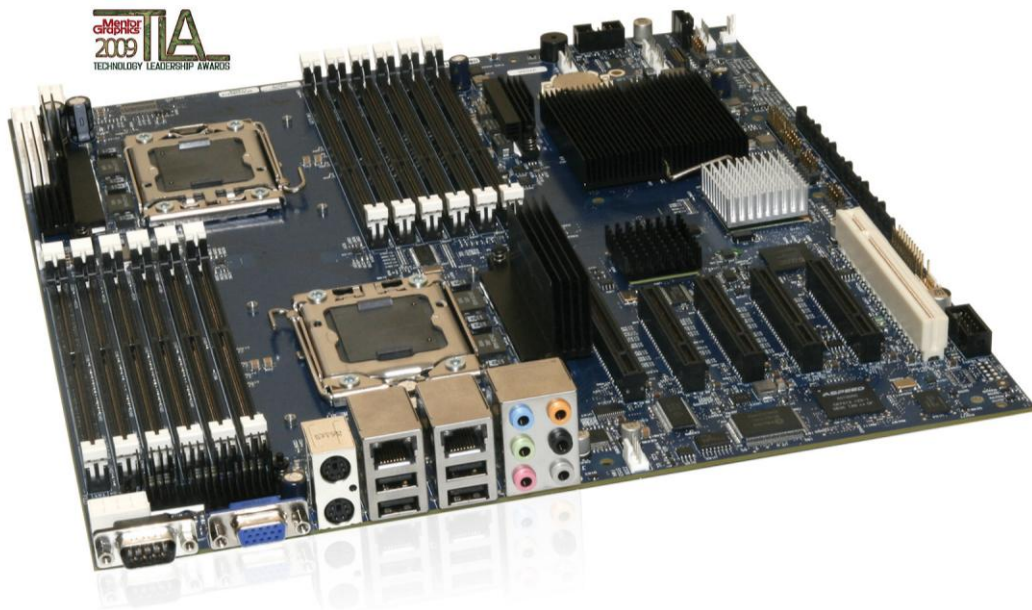


» For Immediate Release «

## Kontron wins prestigious PCB design award

Mentor Graphics picks CAD design team from Kontron for its server board Kontron KTC5520-EATX featuring dual Intel® Xeon® Quad-Core 5500 processors



**Poway, CA/Eching, Germany – September 16, 2009** – Kontron’s R&D design center has won the top award in the category *Computers, Blades and Servers, Memory Systems* during the 21st annual PCB Technology Leadership Awards organized by Mentor Graphics.

Started in 1988, the TLA program is the longest running competition of its kind in the Electronic Design Automation (EDA) industry, and recognizes engineers and CAD designers worldwide who use Mentor’s innovative technology to address today’s complex PCB system design challenges.

The Kontron submission described the challenges its CAD team faced in designing the [Kontron KTC5520-EATX](#) server board. Included were the significant signal and power integrity issues in a limited amount of PCB real-estate, not to mention costs, reliability, and an assortment of government compliance milestones that needed to be met. Other considerations were the more than 17,000 connections on four layers, the odd angled diff pair routing issues to mitigate fibre weave effects, the need for 6.4 Gbps transfers and a 32 picoseconds rise time and, lastly, a high density design without microvias.

“The expertise and quality work of Kontron CAD design engineers can be substantiated by the incredible tools they use from Mentor Graphics, in particular Expedition Enterprise,” said Dirk Finstel,

## 2 of 3 Kontron wins prestigious PCB design award

CTO of Kontron. "We surely wish to thank Mentor for this honor, as well as for their incredible support during the last several years. Only with exceptional tools can one make extraordinary products."

"For years we have been impressed with the complexity of Kontron's designs and the high level of their designers' expertise," stated Henry Potts, Mentor Graphics vice president and general manager of the Systems Design Division. "We are so pleased they decided to enter this year's worldwide competition. The judges were extremely impressed with their knowledge and use of the design-for-high-performance functionality, in particular the routing and analysis of so many differential pairs and DDR3 memory all packed into a 4-layer board."

Comments from the independent panel of judges included notes about "an exceptionally good use of routing room," and "the challenges to bring this design to completion on a four layer routing board with all the class rules and constraint rules impress me". With high cost and time pressures, the Kontron design team was able to work on concurrent design portions in real-time using XtremePCB and, with such quality of work, succeeded in having the board work right away on the first revision.

"The complexity of the designs submitted represents how rapidly the electronics industry is progressing and how designers are leveraging their Mentor tools to implement innovative approaches with advanced PCB technologies," said Pete Waddell, editor of Printed Circuit Design and Fab magazine, and president of UP Media Group. "The fact that 89 percent of the entries had a high percentage of high-speed nets, and 44 percent of entries used advanced PCB fabrication technologies like HDI/microvias are examples of pushing the envelope to develop products that are more competitive."

Industry experts judged entries from 17 countries in five categories representing a wide variety of industries. The PCB industry expert judges included: Happy Holden, senior technology specialist of Mentor Graphics; Gary Ferrari, technical support director, FTG Circuits; Pete Waddell, vice president of UP Media Group and publisher of Printed Circuit Designs & Fab magazine; Andy Kowalewski, senior interconnect designer, AdvantagePCB; and Rick Hartley, senior principal engineer, avionics division of L-3 Communications.

### **Some interesting stats on the submissions for TLA 2009:**

- The largest board is measured in feet, the smallest in tenths of inches.
- Some submissions have nets exceeding 10,000.
- The largest total trace distance is more than 15 miles.

More on the Kontron KTC5520-EATX server board:

<http://www.kontron.com/products/boards+and+mezzanines/server+board/ktc5520eatx.html>

## Kontron wins prestigious PCB design award

### About Mentor Graphics

Mentor Graphics Corporation (NASDAQ: MENT) is a world leader in electronic hardware and software design solutions, providing products, consulting services and award-winning support for the world's most successful electronics and semiconductor companies. Established in 1981, the company reported revenues over the last 12 months of about \$800 million and employs approximately 4,425 people worldwide. Corporate headquarters are located at 8005 S.W. Boeckman Road, Wilsonville, Oregon 97070-7777. World Wide Web site: <http://www.mentor.com/>

### About Kontron

Kontron designs and manufactures embedded and communications standards-based, rugged COTS and custom solutions for OEMs, systems integrators, and application providers in a variety of markets. Kontron engineering and manufacturing facilities, located throughout Europe, North America, and Asia-Pacific, work together with streamlined global sales and support services to help customers reduce their time-to-market and gain a competitive advantage. Kontron's diverse product portfolio includes: boards & mezzanines, Computer-on-Modules, HMI's & displays, systems & platforms, and rugged & custom capabilities. Kontron is a Premier member of the Intel® Embedded and Communications Alliance and has been a VDC Platinum Vendor for Embedded Computer Boards 5 years running. Kontron is listed on the German TecDAX stock exchange under the symbol "KBC". For more information, please visit: <http://www.kontron.com>

### KONTRON Contact Details

#### EMEA

Norbert Hauser  
Kontron  
Tel: +49 (8341) 803-0  
[norbert.hauser@kontron.com](mailto:norbert.hauser@kontron.com)

Michael Hennen  
SAMS Network  
Tel: +49 (2405) 45267-20  
[michael.hennen@samsnetwork.com](mailto:michael.hennen@samsnetwork.com)

#### Americas

Richard Pugnier  
Kontron  
Tel: +1 (858) 623-3006  
[richard.pugnier@us.kontron.com](mailto:richard.pugnier@us.kontron.com)

Annette Keller  
Keller Communications  
Tel: +1 (949) 640-4811  
[annettekeller@sbcglobal.net](mailto:annettekeller@sbcglobal.net)

#### APAC

Tom Meyer  
Kontron  
Tel: +86 (10) 6375 1188 ext 233  
[tom.meyer@kontron.com](mailto:tom.meyer@kontron.com)

Michael Hennen  
SAMS Network  
Tel: +49 (2405) 45267-20  
[michael.hennen@samsnetwork.com](mailto:michael.hennen@samsnetwork.com)

### For more information on Mentor Graphics, please contact:

Larry Toda  
Mentor Graphics  
Tel: 503.685.1664  
[larry\\_toda@mentor.com](mailto:larry_toda@mentor.com)

Suzanne Graham  
Mentor Graphics  
Tel: 503.685.7789  
[suzanne\\_graham@mentor.com](mailto:suzanne_graham@mentor.com)

All rights reserved.

Kontron is a trademark or registered trademark of Kontron AG.

Intel and Intel Xeon are trademarks of Intel Corporation in the US and other countries.

All other brand or product names are trademarks or registered trademarks or copyrights by their respective owners and are recognized.

All data is for information purposes only and not guaranteed for legal purposes. Subject to change without notice. Information in this press release has been carefully checked and is believed to be accurate; however, no responsibility is assumed for inaccuracies.