

» Application Story «

COM Express™ in Medical



From the dentist's chair to a multimedia cockpit Embedded modules with carrier board from Kontron create enhancements in medical engineering



ERGOcom 4 is an innovative communication system for dental practices, delivering a variety of information to both dentists and their patients. When developing the system, KaVo engineers wanted a solution that offered flexibility and sustainability, which they found in Kontron's COM Express™ technology. Here is a summary of the upcoming, full-length reference report on the application of modern embedded technology in medicine.

The company

KaVo, based in Biberach in southern Germany, is a leader in products for dentists and dental engineering. It employs more than 3000 people worldwide, focusing on product quality and customer satisfaction. Through its continuing innovation, KaVo has made a substantial contribution to advances in dentistry, as evidenced by more than 2200 patents and utility models granted at home and abroad.

The application

One of the most interesting products from KaVo is the ERGOcom 4 communication system, a kind of cockpit for dentists and their patients. Linked to the treatment unit and the practice's IT network, it delivers a variety of valuable information, such as X-ray images, from the network straight to a rotatable screen where the dentist is working. Here the dentist can also connect an interoral camera to view real-time images of parts of the mouth that are hard to access. Not forgetting the patient, who can call up a multimedia program for entertainment and distraction during lengthy treatment sessions. KaVo engineers required a suitable embedded computer concept for this system.

The requirements

When developing the system, KaVo attached a great deal of importance to its sustainability and flexibility. As a manufacturer of solutions aimed at medical engineering, it must always try to achieve the right balance between

quality, long-term availability, and current trends. Business partners whose technologies are selected by KaVo must consequently contribute to and support development of a product. Embedded technology needs to be powerful enough to serve the whole functionality of the product. Plus, it has to be capable of adopting the kind of innovations that emerge with future developments. KaVo's partners also need to be able to provide ample support right from the design stage.

The solution

The solution chosen by KaVo is an ETXexpress® module with a custom baseboard from Kontron and is based on the COM Express™ standard. This technology is ideal for KaVo's purposes in the way it fuses flexibility and scalability. The mechanical and electronic concept of the COM Express™ standard not only demonstrated its worth in the initial phase, but ongoing development also shows that the standard can be effortlessly matched to new needs in terms of form factor and energy efficiency. Kontron additionally offered competent and reliable support during design-in and ensuing phases.

The advantages

Kontron's COM Express™ technology and specialist support have contributed to setting up ERGOcom 4 on a reliable, sustainable, and flexible module/baseboard combination. KaVo is consequently not only able to plan long-term but can also easily incorporate new trends into its system.

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, HMIs & displays, systems & platforms, and rugged & custom capabilities.

Kontron is a Premier member of the Intel® Embedded 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: www.kontron.com

CORPORATE OFFICES

Europe, Middle East & Africa

Oskar-von-Miller-Str. 1
85386 Eching/Munich
Germany
Tel.: +49 (0)8165/ 77 777
Fax: +49 (0)8165/ 77 279
info@kontron.com

North America

14118 Stowe Drive
Poway, CA 92064-7147
USA
Tel.: +1 888 294 4558
Fax: +1 858 677 0898
info@us.kontron.com

Asia Pacific

17 Building, Block #1, ABP.
188 Southern West 4th Ring Road
Beijing 100070, P.R.China
Tel.: + 86 10 63751188
Fax: + 86 10 83682438
info@kontron.cn

