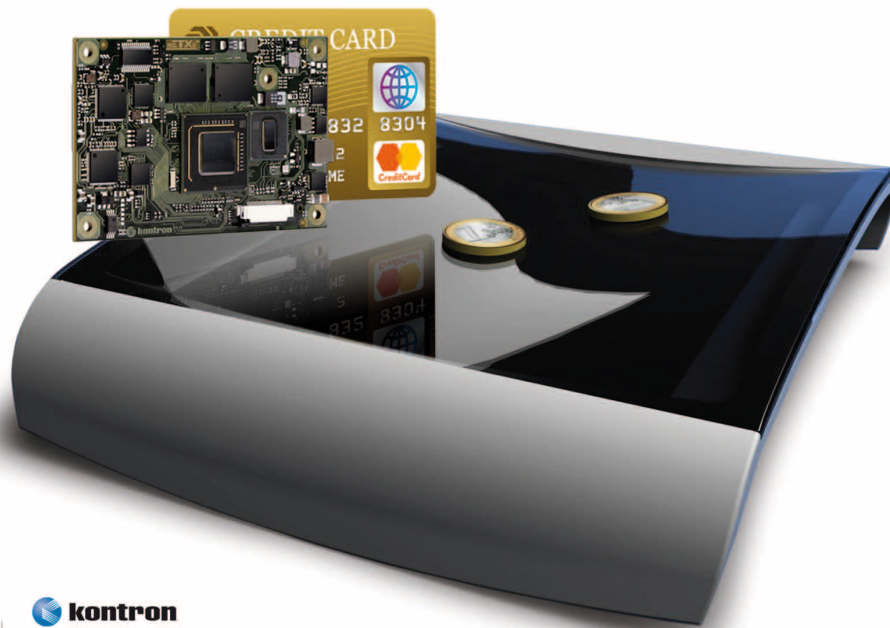


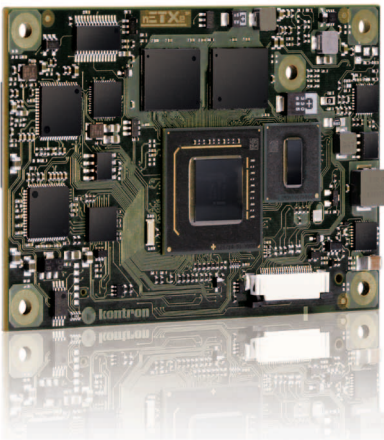
# » Application Story «

nanoETXexpress in Infotainment



## Digital money trays: Tipro Deutschland brings interactive applications to the cash desk

**NFC Terminals need x86 interactivity**



Tipro Deutschland is working on digital money trays with full PC functionality based on the Intel® Atom™ processor. The company, which already offers USB-based “simple” multimedia money trays for connection to PC terminals is using now PC technology and integrates nanoETXexpress Computer-on-Modules to develop more interactive, networked money trays.

Shortly they will become available with RFID and NFC compatibility and with that be ready for application in a variety of payment and ticketing systems including access control and web-based Digital Signage solutions. The NFC protocol for payment via mobile phone is already widely used in Asian countries. The worldwide market for NFC systems however is expected to show an annual growth of over 100 percent up until 2013, according to a recent study carried out by IE Market Research Corp. According to that, in retail there will be an over-proportional, wide-scale growth in the deployment of such POS devices. It also means that terminals are required which are cost-efficient, interactive and multi-functional and this definitely speaks for the appliance of Computer-on-Modules with Intel® Atom™ technology in money trays.

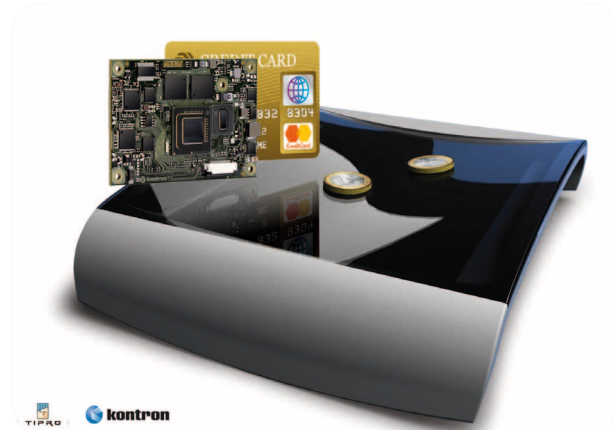
As an option, the NFC modules which are integrated in the money tray can be equipped with a SIM card slot. This allows for system upgrades via mobile radio data transmission. In addition to this, the feature set is enhanced with optional LAN and/or Wi-Fi connections in order to allow upgrades via the company network. This is also a solution available without the NFC function. A glass touch display solution is also in preparation in order to make the system even more comfortable and interactive. This solution positions Tipro in the high-end segment of digital money tray systems. Investments in such digital money trays are extremely worthwhile: Customers spend anything from 20 seconds to 3 to 5 minutes at the cash desk. The retail industry wants to make the most of this time for getting the right advertising messages across.

Parallel to this, Tipro is expecting new application areas for the digital money tray in conjunction with the introduction of the German health card. Different versions of the system with card readers and integrated touch-screens are already being tested in the field and will soon be introduced on a nationwide scale. The advantage of money trays is the way they can be positioned in a space-saving manner on the table or counter resulting in other customers not being able to see, for example, what type of prescription has been issued.

“For Tipro, the decision for nanoETXexpress was a question of robust and long-term available embedded designs and, of course, a question of size. Additionally, the fact that x86 is an open architecture means that it is open for potential future applications. With ARM designs, entry barriers would be significantly higher and with that less successful”, says Džesi Okanovic, Sales Manager Director from Tipro. “The comprehensive OS support of not only Linux and the

Windows family but also of QNX and VxWorks which Kontron provides for the nanoETXexpress modules goes to make the package even more attractive. That means that Tipro always remains open for customer-specific requirements.

Last but not least, for Džesi Okanovic the final winning factor was however the COM Express™ compatibility of nanoETXexpress with the robust connector: “Our overall package is a very efficient modular system consisting of the smallest modules with the highest performance, an open and manufacturer-independent specification with the corresponding design guides. Any questions regarding COMs can be posed to a large community which supports the PICMG® standard. That gives our investment a future-proof seal. Also, all manufacturers of the COM Express™ compatible nanoETXexpress format are striving for this to become an official part of the PICMG® specification. And, as the largest COM vendors are also supporting this together with Kontron we’re certain that this will come to pass.”



## AUTHOR



Gerhard Szczuka is Product Marketing Manager Computer-on-Modules at Kontron.

## 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: <http://www.kontron.com>

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