



## **Embedded World 2008 – Hall 9 Stand 219**

**Microprocessor combines 32-bit ARM processor with graphics control and processing functionality to simplify multimedia applications**

**Low power device features ARM926EJ-CPU™ core, LCD controller with image process accelerator, touch screen interface, CMOS image sensor input, high speed USB 2.0 (480Mbps), SD Host Controller and comprehensive connectivity options**

Toshiba Electronics Europe has launched a low power ARM-based microprocessor that combines a high-performance 32-bit core with comprehensive graphics control and processing functionality and a variety of on-board connectivity and peripheral options. The new device will considerably reduce the development time and component count of applications requiring basic multimedia functionality.

Based on the ARM926EJ-S™ CPU core operating at up to 200MHz, the new TMPA910CRAXBG uses a seven layer multibus

architecture. This architecture significantly improves performance compared to other devices operating at similar processor speeds. The built-in LCD controller offers support for TFT and STN display sizes up to 1024 x 1024 pixels. An LCD data processor accelerator delivers image scaling, filtering and blending functions and offers real time processing for movies at speeds up to 30 frames per second.

The new TMPA910CRAXBG has a CMOS image sensor interface that simplifies the implementation of applications requiring image capture. A touchscreen interface further reduces the need for external components in man machine interface (MMI) designs. Additional connectivity includes SPI, UART, I<sup>2</sup>C, I<sup>2</sup>S, and a high-speed USB device (480Mbps).

Toshiba has incorporated 56Kbytes of built-in embedded RAM for program, data and display memory, Boot ROM, and a memory controller that supports SDR and DDR SDRAM. Up to 2.5Gbytes of linear access space can be addressed. An SD host controller supports high-speed mode SD cards with capacities up to 32GB.

The new microprocessor is supplied in a 361-pin FPGA package. Additional built-in peripherals include a 10-bit ADC, a six-channel, 16-bit timer, a watchdog timer, real time clock and alarm functionality.

In addition to extensive software support that includes graphics libraries and embedded operating systems, the new device is supported through the availability of a Starter Kit that will further speed application development and prototyping.

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## About Toshiba

Toshiba Corporation is a leader in information and communications systems, electronic components, consumer products and power systems. The company's integration of these wide-ranging capabilities assures its position as an innovator in advanced components, products and systems. Toshiba has more than 172,000 employees worldwide and annual sales of over US\$54 billion (FY2005).

Toshiba Electronics Europe (TEE) is the European Headquarters for the electronic components business of Toshiba Corporation, which is the world's fourth largest semiconductor vendor according to estimates by Dataquest.

Providing design, manufacturing, marketing and sales, TEE was formed in 1973 in Neuss, Germany. The company now has headquarters in Düsseldorf, Germany and subsidiaries in France, Italy, Spain, Sweden and the United Kingdom. Company president is Mr Shikama and the total number of personnel in Europe is around 400.

Toshiba Electronics Europe offers one of the industry's broadest IC and discrete product lines including high-end memory, microcontrollers, ASICs, ASSPs and display products for automotive, multimedia, consumer, telecoms and networking applications. The company also has a wide range of power semiconductor solutions.

For more company information visit Toshiba's web site at [www.toshiba-components.com](http://www.toshiba-components.com)

### Contact details for publication:

Toshiba Electronics Europe, Hansaallee 181, D-40549 Düsseldorf, Germany  
Tel: +49 (0) 211 5296 0 Fax: +49 (0) 211 5296 792197  
Web: <http://www.toshiba-components.com/pressoffice/index.asp>  
E-mail: [info@toshiba-components.com](mailto:info@toshiba-components.com)

### Contact details for editorial enquiries:

Silke Daniels, Toshiba Electronics Europe  
Tel: +49 (0) 211 5296 197  
E-mail: [sdaniels@tee.toshiba.de](mailto:sdaniels@tee.toshiba.de)

### Issued by:

Simon Flatt/Andrew Town, Pinnacle Marketing Communications Ltd,  
Prosperity House, Dawlish Drive, Pinner, Middlesex, HA5 5LN, UK  
Tel: +44 (0) 20 8869 9229/9345 Fax: +44 (0) 20 8868 4373.  
Web: [www.pinnacle-marketing.com](http://www.pinnacle-marketing.com)  
E-mail: [simon@pinnaclemarcom.com](mailto:simon@pinnaclemarcom.com) or [andrew@pinnaclemarcom.com](mailto:andrew@pinnaclemarcom.com)

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