TOSHIBA

Toshiba's ARM® Cortex®-M4-based Microcontrollers deliver high-speed data processing

Wide range of options ensures suitability for multiple application sectors

Düsseldorf, Germany, 07th May 2019 – Toshiba Electronics Europe GmbH has added the M4G Group to its TXZ™ Family of ARM® Cortex®-M-based microcontrollers for office automation (OA) equipment, audio-visual (AV) equipment, and industrial equipment.

The M4G Group is based on the ARM Cortex-M4 core with a floating-point unit (FPU). It incorporates high-performance analog circuits, a wide range of timers and communication channels, and is available in a variety of packages, from 100 to 177 pins, with onboard flash memory ranging from 512kB to 1536kB alongside up to 194kB of RAM and 32kB of data FLASH that can be rewritten up to 100,000 times. Operating frequency is up to 160MHz and the microcontrollers have an operating temperature range of -40°C to +85°C.

In addition to high-precision analog circuits that include a 12-bit AD converter (up to 24 channels) with a 1.0μs conversion speed, and an 8-bit DA converter (2 channels), the M4G Group incorporates two DMA controllers; a high-speed DMA controller and a multi-function DMA controller. Both realize low power consumption and advanced functions,

while incorporating highly versatile peripheral circuits, such as serial memory interface (SMIF), UART, I^2C, TSPI, timers, and support for large-scale systems.

The AD converter allows selection of two sampling periods with arbitrary channels, contributing to a reduction of impedance adjustment components in large-scale systems that require multiple sensors. A built-in interlinking function for timers, UART, and TSPI, and an interval sensor detection circuit (ISD), contribute to reduced loads in software processing.

The products will begin mass production throughout the next six months.

Toshiba plans to release groups of microcontrollers for communication control in high-speed data processing, and devices equipped with high-precision analog circuits for control of low- to medium-speed motors. The company continues to expand the TXZ family to meet the needs of the motor control and global sensing market.

Follow the link below for more information on the new products:
https://toshiba.semicon-storage.com/eu/design-support/search/multiSearch.1.1.TMPM4G.html

Follow the link below for an introduction to each product group:
https://toshiba.semicon-storage.com/eu/product/microcomputer/lineup/arm-micon/txz4-series/m4g-1.html

Notes:
* ARM and Cortex are registered trademarks of ARM Limited (or its subsidiaries) in the US and/or elsewhere.
* TXZ is a trademark of Toshiba Electronic Devices & Storage Corporation.

###

About Toshiba Electronics Europe
Toshiba Electronics Europe GmbH (TEE) is the European electronic components business of Toshiba Electronic Devices and Storage Corporation. TEE offers European consumers and businesses a wide variety of innovative hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

TEE has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Tomoaki Kumagai

For more company information visit TEE's web site at www.toshiba.semicon-storage.com.

Contact details for publication:
Toshiba Electronics Europe GmbH, Hansaallee 181, D-40549 Düsseldorf, Germany
Tel: +49 (0) 211 5296 0   Fax: +49 (0) 211 5296 79197
Web: www.toshiba.semicon-storage.com/eu/company/news.html
E-mail: solution-marketing@toshiba-components.com

Contact details for editorial enquiries:
Michelle Shrimpton, Toshiba Electronics Europe GmbH
Tel: +44 (0)193 282 2832
E-mail: MShrimpton@teu.toshiba.de

Issued by:
Birgit Schöniger, Publitek
Tel: +44 (0) 20 8429 6554
Web: www.publitek.com
E-mail: birgit.schoeniger@publitek.com

May 2019   Ref. 7209/A