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Smartphone-Like Graphics Coming to Everyday Objects Courtesy of New STM32 Microcontrollers from STMicroelectronics

*Augmenting the capabilities of “smart objects” without higher cost
or impact on battery lifetime*

Geneva, April 2, 2015 – STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, has introduced new microcontroller chips designed to bring the same high-performance graphics enabling intuitive smartphone-like user interfaces in the world of wearable devices, smart appliances, and other IoT (Internet of Things) applications. The new [STM32F469/479](#) microcontroller line delivers this new level of performance through the combination of ST’s Chrom-ART Accelerator™¹ and the MIPI-DSI technology² that is widely deployed in today’s leading smartphones and tablets, without higher cost or shorter battery-lifetime penalties.

Paving the way to enabling “smart objects” such as wearable fitness aids or intelligent home appliances, the new product line combines leading real-time processing performance with extended connectivity to deliver to these applications the benefit of software ecosystems such as application stores that are increasingly part of everyday life.

At the heart of the new product line is a powerful 32-bit low-power ARM® Cortex®-M4 MCU (Microcontroller Unit) core augmented by the Chrom-ART Accelerator and ART Accelerator™ that speed up graphics and real-time processing as well as access to the MCU’s program memories. Through the combination of the accelerators and the MIPI-DSI interface, the new MCU performs the demanding real-time system control, monitoring, and application tasks that would otherwise require even more powerful – and more power-hungry – processors.

Equally important, the new products exploit ST’s long history of leadership in both minimizing the power consumption of its circuits and packing these complex

¹ Chrom-ART Accelerator™ is a 2D Direct Memory Access (DMA2D) peripheral able to directly access, decode, and blend image data and output directly to an LCD display.

² The Display Serial Interface (DSI) is a specification by the Mobile Industry Processor Interface (MIPI) Alliance for display controllers in mobile devices.

electronic circuits into the smallest possible physical space. Minimizing power extends operating time without a battery recharge, and shrinking circuits allows equipment makers to meet the ever-increasing consumer demand for smaller and lighter products.

“Smartphones and tablets have given consumers across the world an expectation of high graphics performance, along with intuitive user interfaces and ease of use for activities such as instantly downloading and running apps,” says Michel Buffa, General Manager, Microcontroller Division, STMicroelectronics. “Till now, equipment has often sacrificed graphics processing to meet the demands of real-time application processing. These new microcontrollers enable IoT products that meet today’s user expectations while remaining within the strict power, cost, and size constraints of applications that rely on embedded microcontrollers.”

The STM32F479 devices also include an embedded cryptographic co-processor for applications where high security is required.

The [STM32F469/479](#) microcontrollers are sampling now to lead customers and volume production is scheduled for Q3 2015. Budgetary pricing starts at \$8.29 for the STM32F469AEH6 with 512KB Flash Memory in the BGA 169 package in volumes of 10K units.

About STMicroelectronics

ST is a global leader in the semiconductor market serving customers across the spectrum of sense and power and automotive products and embedded processing solutions. From energy management and savings to trust and data security, from healthcare and wellness to smart consumer devices, in the home, car and office, at work and at play, ST is found everywhere microelectronics make a positive and innovative contribution to people's life. By getting more from technology to get more from life, ST stands for life.augmented.

In 2014, the Company’s net revenues were \$7.40 billion. Further information on ST can be found at www.st.com.

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