

## Embedded AWARD 2015

The nomination refers to following product:

- Category: Hardware
- Name of product: **STM32F7**

“The STM32 F7 is the smartest and highest performance STM32 and the world’s first ARM Cortex-M7 based 32-bit MCU. It delivers 1000 CoreMark/428 DMIPS executing from embedded Flash thanks to ST ART Accelerator™ at 200 MHz and up to twice the DSP performance, without compromising on power efficiency. External memory can be used with no performance penalty thanks to the L1 cache (I/D 4KB+4KB).

This combination allows creation of more responsive, innovative applications, running on either on-chip or off-chip memories. Fully pin-to-pin and code compatible with the STM32 F4 and the STM32 Ecosystem. The STM32F7 also offers an easy upgrade for existing designs based on STM32 F4.

The STM32 F7 optimizes the entire system performance by combining a set of brand new peripherals around the Cortex-M7, with a superior interconnect architecture with AXI and multi AHB bus matrix, multiple general purpose and dedicated DMA controllers and Chrom-ART graphic HW acceleration. Put together, it allows concurrent and high speed data transfer between bus masters and slaves without loading the CPU. In addition, advanced graphic, thanks to the Chrom-ART, the TFT controller and the SDRAM support, is rendered possible very efficiently. When combined with the audio capability of the device, thanks to the SAI interface, and its low current consumption in STOP mode, the STM32F7 can easily address the IoT applications requiring better HMI and augmented user experience”

