

STM32H7x3 MCUs

High-performance line



High-performance MCUs with ARM® Cortex®-M7 core

The STM32H743/753 lines offer the performance of the Cortex-M7 core running up to 400 MHz. Combined with a smart architecture based on a multi-power domain, developers can always use the best configuration to optimize data transfers and CPU load while staying gentle on the power budget when needed.

The embedded hardware accelerators and the extensive digital and analog peripheral set make the STM32H743/753 very well suited for industrial applications where fast reaction time is key or HMI applications where the graphic and audio support will allow an unprecedented user experience with an embedded microcontroller.

CORE, MEMORIES AND ACCELERATION

- Cortex-M7 core @ 400 MHz
- 16KB+16KB I/D L1 Cache
- Double-precision FPU
- 4 x DMA controllers
- Up to 2MB Flash / 1MB RAM

CONNECTIVITY

- 2 x USB2.0 OTG FS/HS
- USART, UART, SPI, and I2C
- 2 x CAN (1 x FD and 1 x TT/FD)
- Ethernet MAC
- FMC and QuadSPI
- 2 x SDMMC

AUDIO

- 3 x I2S + audio PLL
- 4 x SAI
- 2 x 12-bit DAC
- SPDIF-RX

GRAPHICS

- LCD TFT controller
- JPEG Codec
- Chrom-ART Accelerator™

OTHER

- Optional crypto
- DFSDM
- 16- and 32-bit timers
- 3x ADCs with 16-bit max. resolution (up to 3.6 MSPS)
- Analog (comp, AOP)
- Power supply 1.7 to 3.6 V

Note:

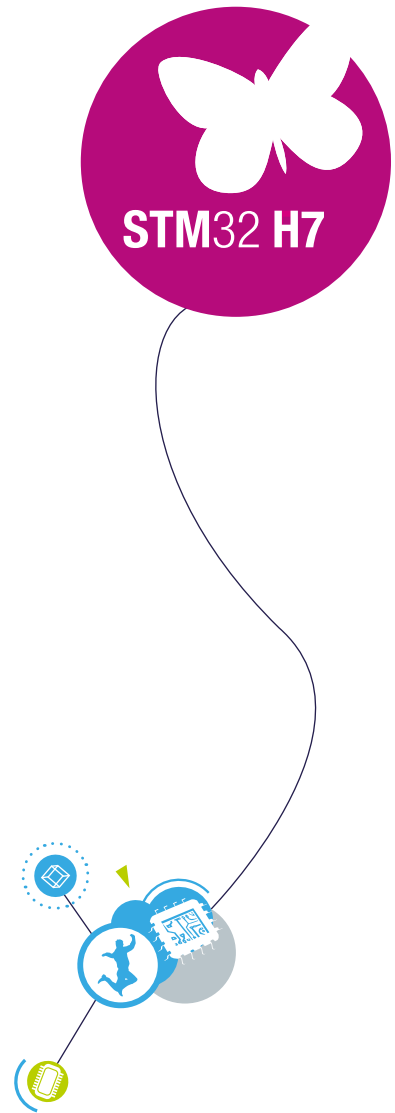
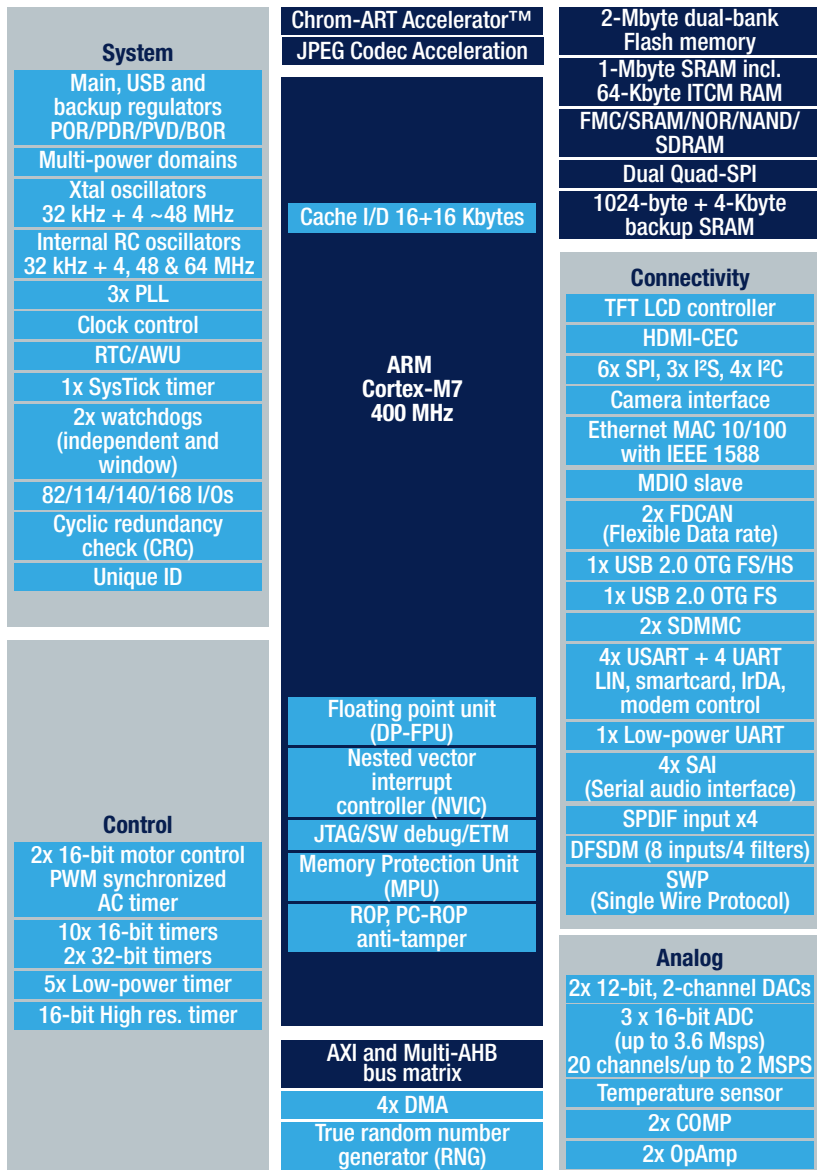
(*) available in Q2 2018

SECURITY

Authenticate and protect your software IP while performing initial programming or firmware upgrades in the field (*)

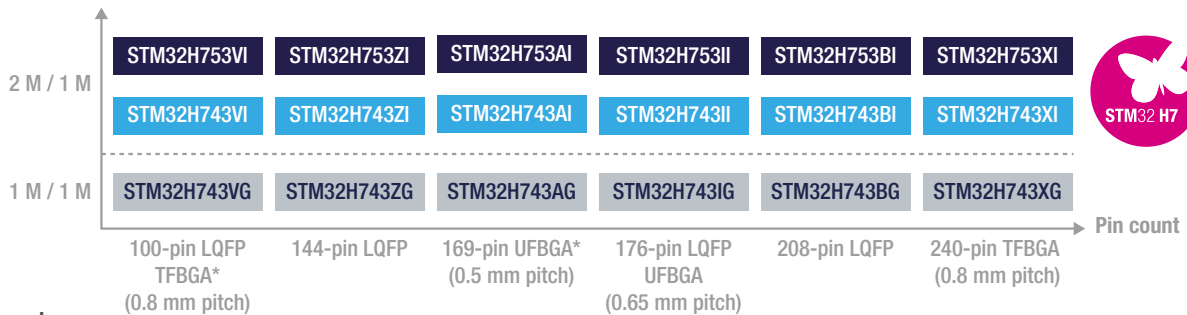


STM32H743xi BLOCK DIAGRAM



STM32H7 PORTFOLIO

Flash memory size / RAM size (bytes)



Legend:

- without HW crypto/hash
- without HW crypto/hash Full production in Q2-2018
- with HW crypto/hash

Note (*): Planned - contact your sales office



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