

STM32L4 Series

Ultra-low-power and performance



STM32™ ultra-low-power at 100 DMIPS with DSP and FPU

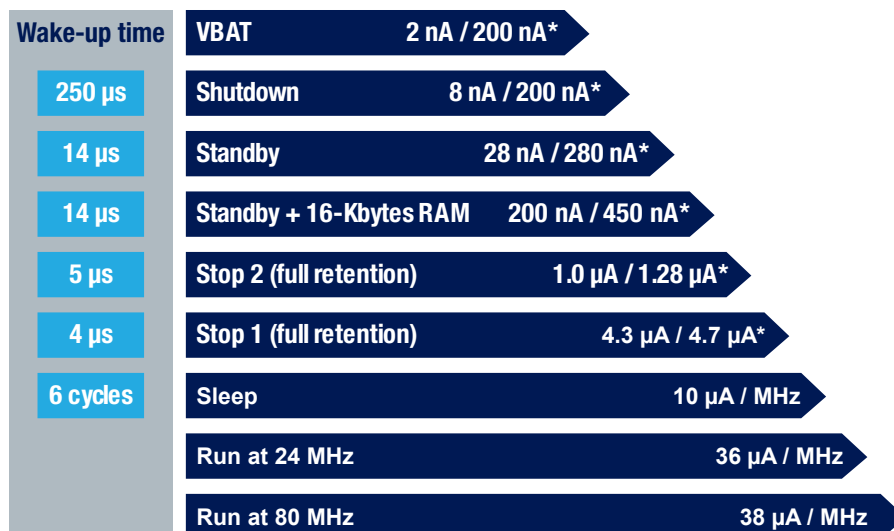
ULTRA-LOW-POWER EXCELLENCE

The STM32L4 microcontroller is based on a new ultra-low-power platform featuring FlexPowerControl which extends flexibility to reach optimized power consumptions: With an EEMBC ULPBench score of 217 ULPBench™-CP, the STM32L4 outperforms the market in the ultra-low-power domain.

WITH PERFORMANCE

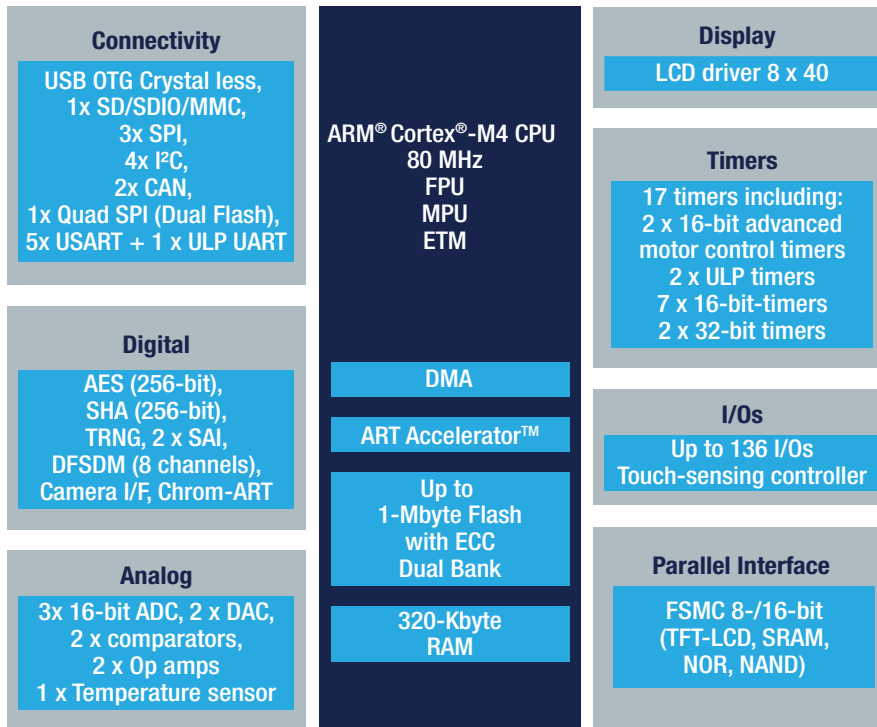
Offering up to 1 Mbyte of Flash (dual bank) memory and up to 320 Kbytes of SRAM, the STM32L4 unleashes the ARM® Cortex®-M4 power efficiency with floating point unit (FPU) and DSP instructions. It delivers 100 DMIPS / 273 CoreMark thanks to the ST ART Accelerator™ at 80 MHz. The entire system performance is optimized using a multi-AHB bus matrix and DMA controllers.

OUTSTANDING LOW-POWER MODES



* without RTC / with RTC

STM32L4A6 BLOCK DIAGRAM



HARDWARE TOOLS



A full set of evaluation boards enables flexible prototyping as well as full STM32L4 evaluation. Commercial part numbers: NUCLEO-L432KC (32 pins); NUCLEO-L476RG (64 pins); NUCLEO-L496ZG (144 pins), NUCLEO-L496ZG-P (144 pins) and STM32L496G-DISCO, STM32L476G-DISCO and STM32L476G-EVAL

SOFTWARE TOOLS

STM32CubeMX enables fast development thanks to its MCU clock configurator, power consumption calculator and code generation tools.

SMART PERIPHERALS

- Low-power UART and I²C communication interfaces
- Low-power time counter (16-bit low-power timers)
- Up to 7 SPIs including Quad-SPI supporting software execution
- Independent peripheral communication clock separate from main system clock
- Digital filters for sigma-delta modulators supporting digital microphone (PDM to PCM conversion w/ HW filter)

STM32L4 PORTFOLIO

