

STM32L4+ Series

Ultra-low-power and more performance



Longer battery life and superior user experience

STM32L4+ MCU series stretches the state-of-art in ultra-low-power technology to provide more performance.

Successfully mixing ultra-low power capabilities with advanced processing capabilities, 2D-graphic acceleration, significantly large memory integration and rich connectivity, the new STM32 product series will help you develop richer functionalities and superior user experience in consumer, medical and industrial battery powered applications.

The STM32L4+ products support up to 125°C ambient temperature and are available with 640 Kbytes of internal SRAM, 1 Mbyte to 2 Mbytes internal Flash memory and in packages offering from 100 to 169 pins.

ULTRA-LOW-POWER EXCELLENCE

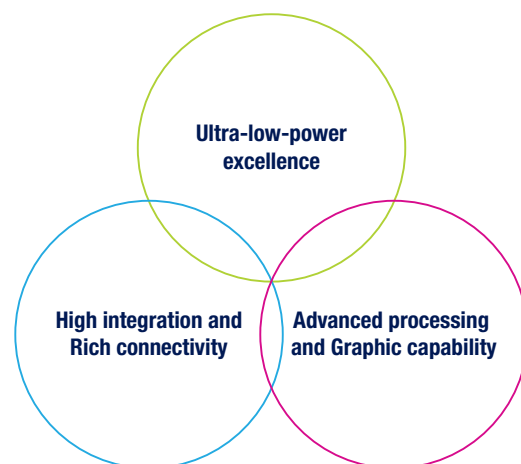
- 233 ULPMark-CP score
- 20 nA in shutdown mode
- 2.5 μ A in stop mode with full SRAM and peripheral states retention and with 4 μ s wakeup time
- Down to 43 μ A/MHz in active mode

SUPERIOR GRAPHIC CAPABILITIES

- Superior graphic effects and fluid user interfaces thanks to ST's Chrom-ART Accelerator™
- "Unsquare the circle" with ST's unique Chrom-GRC™ memory optimization from round displays
- Large display interface options with embedded MIPI-DSI, TFT and parallel display controllers
- 640 Kbytes embedded SRAM enabling single-chip support of up to WQVGA or 400 x 400 round display resolutions

ADVANCED PERFORMANCE

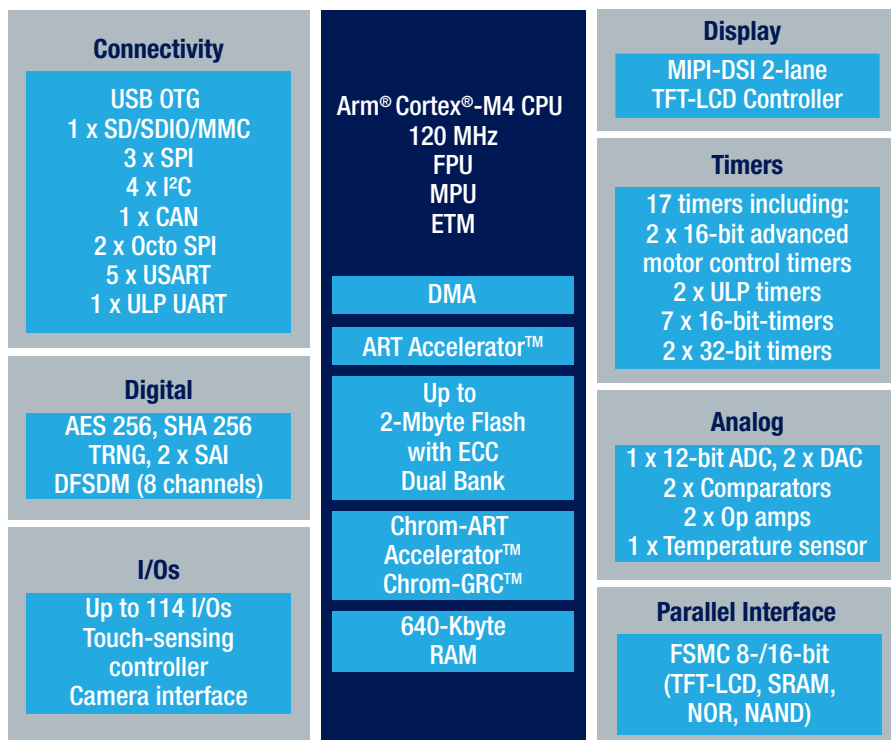
- Arm® Cortex®-M4 at 120 MHz
- Zero wait state execution from internal flash thanks to ST's ART-Accelerator™
- Achieving 150 DMIPS and 410 CoreMark scores



STM32L4+ ON-LINE TRAINING

www.st.com/stm32l4plus-online-training

STM32L4S9 BLOCK DIAGRAM



HARDWARE TOOLS

A full set of evaluation boards enables flexible prototyping as well as full STM32L4+ evaluation.



STM32L4R9I-EVAL Evaluation board



STM32L4R9I-DISCO Discovery kit



NUCLEO-L4R5ZI (144-pin Nucleo)

NUCLEO-L4R5ZI-P (144-pin Nucleo SMPS version)

SOFTWARE TOOLS

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



EMBEDDED SOFTWARE

The STM32CubeL4 package includes the STM32Cube HAL and low-layer (LL) APIs peripheral drivers, plus a consistent set of middleware components (RTOS, USB, FatFS, graphics and STM32 touch sensing). All embedded software utilities come with a full set of examples running on STMicroelectronics boards.

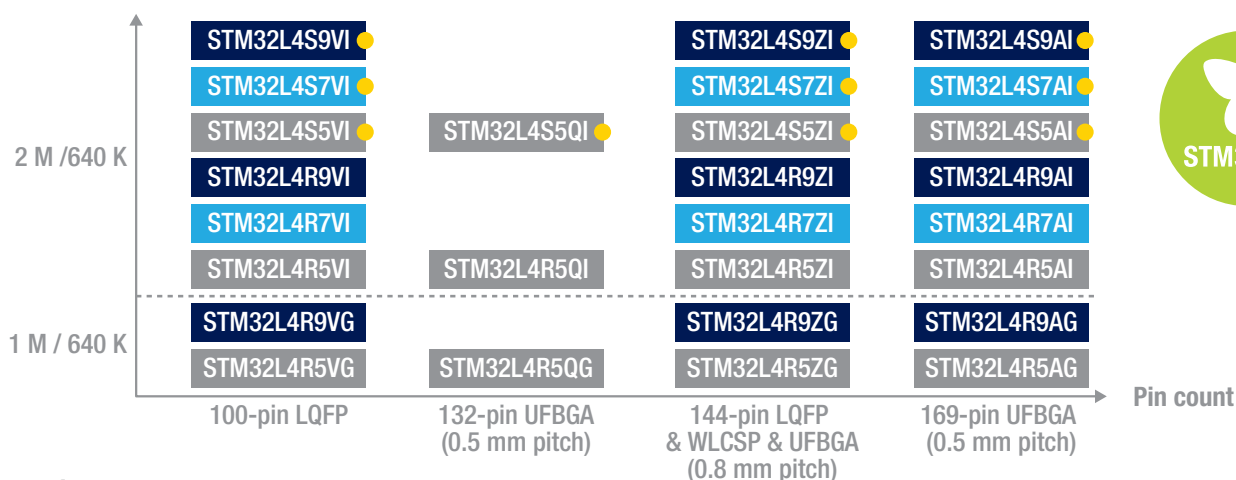


ST COMMUNITY

community.st.com/stm32

STM32L4+ PORTFOLIO

Flash memory size / RAM size (bytes)



Legend:

● With 128-/256-bit AES Hardware Encryption