STM32 microprocessors

STM32 MPUs designed for industrial applications

Industrial-grade microprocessors offering design flexibility and performance with STM32 legacy ecosystem to reduce development time and costs

Industrial and consumer applications require complex embedded systems that can handle high processing loads in real-time. These systems also need to provide rich human machine interfaces (HMIs) and optimize power consumption.

The STM32 family of general-purpose application processors (MPUs) offers developers greater design flexibility and improved performance. These application processors are based on flexible architecture with single or dual Arm Cortex®-A cores, along with a Cortex®-M core, running on 32 to 64-bit platforms.

ST provides a scalable approach to help developers find the right fit, ranging from cost-effective, single-core MPUs to more advanced, multicore MPUs.

INDUSTRIAL GRADE MICROPROCESSORS

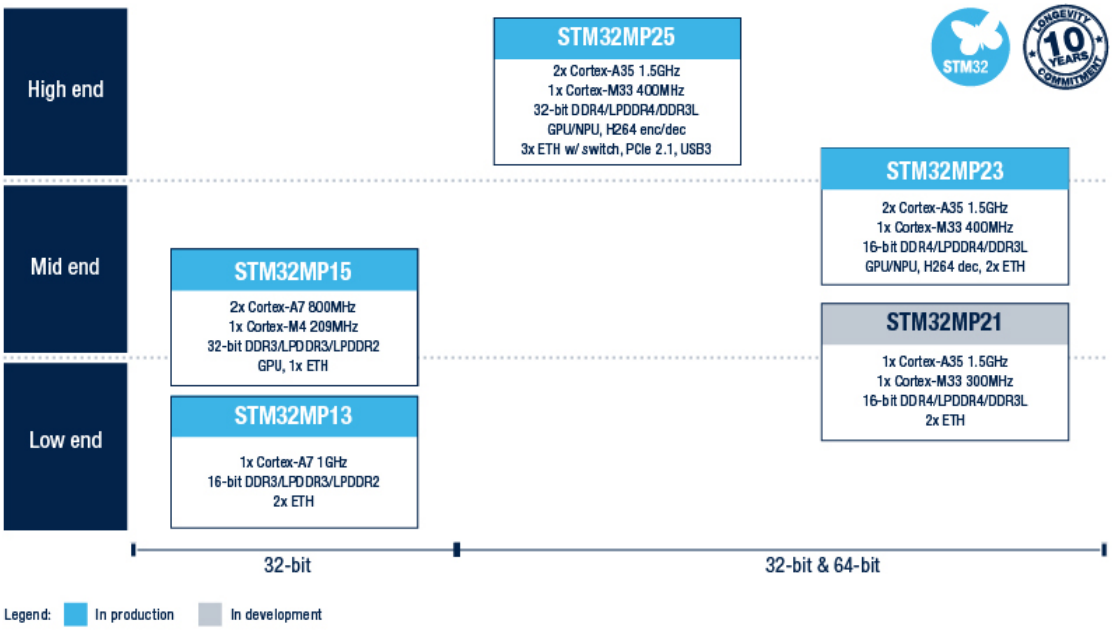
- Industrial qualification combining both
  - 100% operation time during 10 years
  - Junction temperature: -40 to 125°C
- 10 years longevity commitment renewed every year
- Industrial connectivity, advanced analog and real-time processing
- Advanced security for Industry 4.0 with up to SESIP3, PSA certified level 3, PCI target certifications

A STRONG, USER-FRIENDLY ECOSYSTEM

- STM32 application processors leverage the proven software, tools, and technical support provided by the STM32 family ecosystem
- Strong ST Partner Program collaboration for faster time-to-market

www.st.com/sm32mpu

Discover our portfolio



Software tools

STM32Cube framework

Enhanced STM32CubeMX, Multi-Core IDE solutions and STM32CubeProgrammer.

Drivers, middleware & examples

The STM32Cube MPU package provides BSP, HAL, middleware components, and application packages in source code for development. The STM32CubeMP13 supports both **RTOS** and **bare-metal** applications.

Embedded software distribution

Linux® distribution based on Yocto or Buildroot, running on the Arm® Cortex®-A processor(s): OpenSTLinux Distribution. OpenSTDroid Distribution is available for STM32MP25x lines with GPU.

To enable the use of additional components like AI, graphics, real-time and more, we can rely on **OpenSTLinux expansion packages**, to use on top of main distribution.

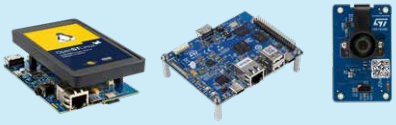
Getting started

Articles to discover the STM32MPU family and associated ecosystems: **wiki.st.com/stm32mpu/**

Hardware tools

A full set of evaluation boards enables flexible prototyping

www.st.com/mpu-hardware



Documentation and support

STM32 Developer zone

Everything for STM32 developers, in one place
www.st.com/mpu-dev-zone