

# New 8-pin STM8L MCUs Saves power and cost



## Ultra-low-power 8-bit microcontrollers now available in small S08 package!

Our ultra-low-power STM8L Value line is expanding to 8-pin packages for two new MCUs.

The STM8L001J3 includes a basic feature set at an affordable price, while the STM8L050J3 offers advanced analog performance and a DMA controller. Both feature the same core processing speed, system control, memory size and communication peripherals.

Our new STM8L are housed in small and affordable industry-standard S08 package that is suitable for cost-sensitive applications.



### CORE AND SYSTEM

- STM8 core at 16 MHz
- 1.8 to 3.6 V operating voltage
- -40 to 125 °C temperature range
- Internal system clocks from 38 kHz to 16 MHz
- Up to 6 I/Os
- Two 16-bit timers, one 8-bit timer

### MEMORIES

- 8 Kbytes of Flash memory
- 256 bytes of separate data EEPROM
- 1.5 Kbyte of RAM

### CONNECTIVITY AND DEBUGGING

- USART
- SPI
- I<sup>2</sup>C
- Single wire interface module

### ANALOG

- 12-bit ADC (4 channels)
- Two comparators
- Real-time Clock

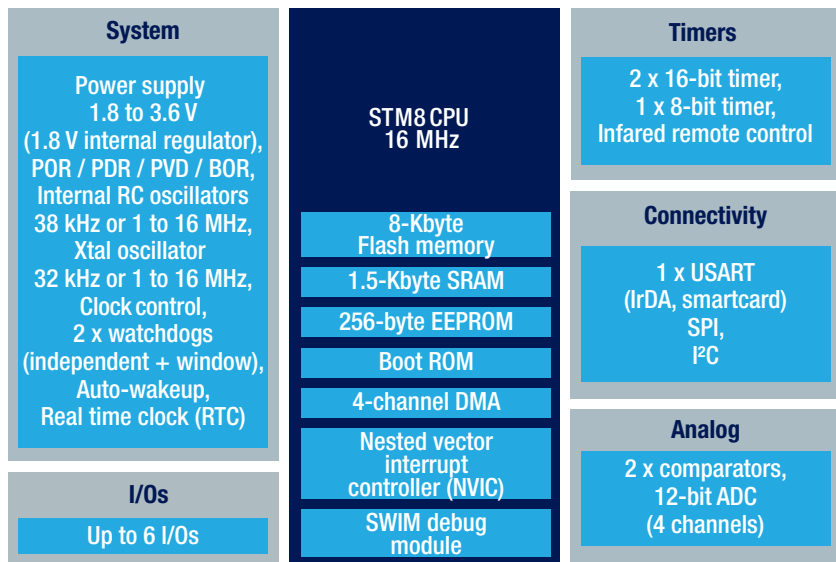
### DMA CONTROLLER

- Direct memory-to-memory and peripheral-to/from memory transfer

### STM8L VALUE LINE APPLICATIONS

- Home automation
- Alarms
- Thermostats
- Small appliances and power tools
- Battery-supplied devices
- Lighting control
- Sensors control
- Healthcare and fitness smartwatches
- Toys and games

## STM8L050J3 BLOCK DIAGRAM



## SOFTWARE TOOLS

The STM8Cube™ initiative is coming to the whole STM8 family! Our STM8CubeMX is a user-friendly software tool that significantly reduces development effort, time and cost. It includes an STM8 selector tool that finds the best MCU based on matching criteria or populating a given board.

STM8CubeMX helps developers configure STM8 microcontrollers through a set of user-friendly graphical wizards:

- Pinout wizard helps resolve any potential pin allocation conflicts
- Clock-tree wizard helps ensure the clocks are properly configured
- Power-consumption calculator helps forecast power consumption scenarios

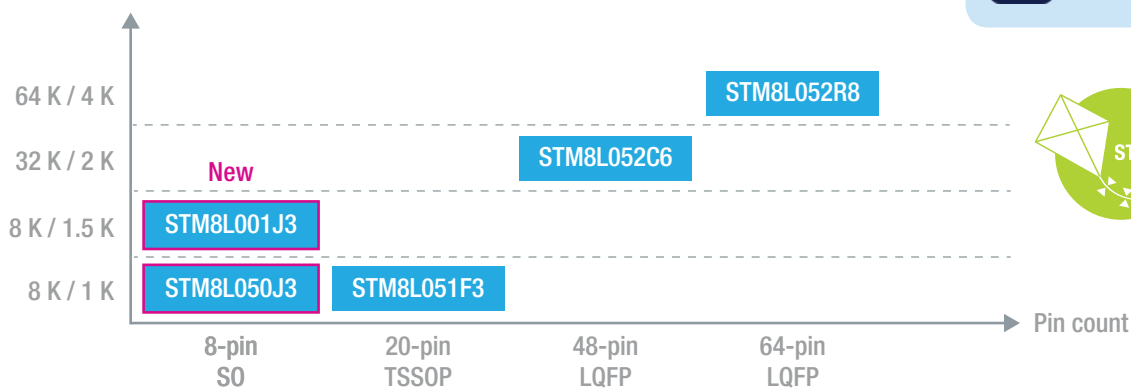
In addition, it is able to generate and store reports on device configurations and performance.

STM8CubeMX is available for Windows®, Linux® and macOS® operating systems.



## STM8L VALUE LINE PRODUCT PORTFOLIO

Flash memory size / RAM size (bytes)



## HARDWARE TOOLS

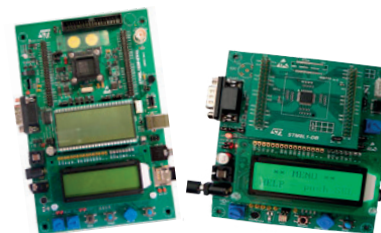
A full set of evaluation boards enables flexible prototyping as well as full STM8L evaluation.

### Discovery kits



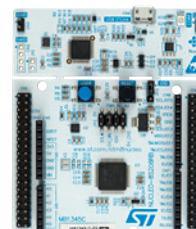
STM8L-DISCOVERY and STM8-S08-DISCO\*

### Evaluation boards



STM8L1528-EVAL and STM8L101-EVAL

### Nucleo boards



NUCLEO-8L152R8\*

Note (\*): Available in Q2-2018



**ST COMMUNITY**  
community.st.com/stm8

