STM8S001 new 8-bit MCUs
Value-line expansion to 8-pin

Entry-level 8-bit microcontrollers with STM8 core now available in a small 8-pin SO package!

Offering essential features set at the most affordable price, our most popular Value line of 8-bit STM8S microcontrollers is now expanding to 8-pin package. STM8S001 goes a step further in terms of price to performance ratio.

Housed in small industry-standard SO8 package, the new STM8S001 offers an outstanding set of features in terms of core processing speed, system control, memory size, communication peripherals, and analog functions.

**CORE AND SYSTEM**
- STM8 core at 16 MHz
- 2.95 to 5.5V operating voltage
- Flexible clock control from 128 kHz to 16 MHz RC
- Up to 5 I/Os
- 8-bit and 16-bit timers (x2)

**MEMORIES**
- 8 Kbytes of Flash memory
- 1 Kbyte of RAM memory
- 128 bytes true data EEPROM

**CONNECTIVITY AND DEBUGGING**
- UART
- SPI
- I²C
- Single wire interface module

**ANALOG**
- 10-bit ADC with 3 channels

**STM8S APPLICATIONS**
- Appliances and power tools
- HVAC
- Power management
- Lighting
- Factory automation
- Devices with rechargeable batteries
- Motor control
- e-Vehicles
- Toys and games
- Sensors
- Power supplies
- User interfaces
**STM8S PRODUCT LINES**

STM8 core - Up to 24 MHz
- 10-bit ADC
- USART, SPI, I²C
- 8- and 16-bit timers
- 16 MHz crystal oscillator and 128 kHz internal RC oscillators
- SWIM debug module

<table>
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<th>Product line</th>
<th>F&lt;sub&gt;CPU&lt;/sub&gt; (MHz)</th>
<th>Flash memory (Kbytes)</th>
<th>RAM (Kbytes)</th>
<th>Data EEPROM (bytes)</th>
<th>CAN 2.0B</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; UART</th>
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<th>LNB firmware</th>
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<td>1</td>
<td>640</td>
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**STM8S PRODUCT PORTFOLIO**

Flash size (bytes)

- 128K
- 64K
- 32K
- 16K
- 8K (New)
- 4K

Product line:
- STM8S001J3
- STM8S103J3
- STM8S003J3
- STM8S207K8
- STM8S208S8
- STM8S208K6
- STM8S208S6
- STM8S207S6
- STM8S007S6
- STM8S005S6
- STM8S105S6
- STM8S105K6
- STM8S005K6
- STM8S105K4
- STM8S005K4

Pin count:
- 8-pin SO
- 20-pin TSSOP/QFN/SO
- 32-pin LQFP/QFN/SDIP
- 44-pin LQFP
- 48-pin LQFP
- 64-pin LQFP
- 80-pin LQFP

Legend:
- Performance line
- Access line
- Application specific line
- Value line

**SOFTWARE TOOLS**

STMCube™ initiative is coming to the whole STM8 family!

Our STMCubeMX 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.

STMCubeMX 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.

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

**HARDWARE TOOLS**

STM8/128-EVAL
STM8SA-DISCOVERY
STM8S-DISCOVERY

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