

STM8S001 8-bit MCUs

Value-line expansion to 8-pin



Entry-level 8-bit microcontrollers with STM8 core 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 industrystandard S08 package, the 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 5.5 V 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
- |2C
- 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-Vehicules
- Toys and games
- Sensors
- Power supplies
- User interfaces

STM8S MCU Series

STM8 core - Up to 24 MHz

• 10-bit ADC	Product lines	F _{CPU} (MHz)	Flash memory (Kbytes)	RAM (Kbytes)	Data EEPROM (bytes)	CAN 2.0B	2 nd UART	Additio - nal analog channels	LNB firmware
 USART, SPI, I²C 8- and 16-bit timers 16 MHz crystal oscillator and 128 kHz internal RC oscillators SWIM debug module 	STM8S001/003/005/007 Value line	16	8 to 64	1 to 6	128				
	STM8S103/105	16	4 to 32	1 to 2	640 to 1024				
	STM8S207/208	24	32 to 128	6	1024 to 2048	•	•	•	
	STM8S Application-specific line	16	8	1	640			•	•





STM8S Product Portfolio

Elach ei	ze (bytes)								
	ze (bytes)			STM8S208SB	STM8S208CB	STM8S208RB	STM8S208MB		
128 K				STM8S207SB	STM8S207CB	STM8S207RB	STM8S207MB		
•				STM8S208S8	STM8S208C8	STM8S208R8	STM8S208M8		
64 K			STM8S207K8	STM8S207S8	STM8S207C8	STM8S207R8	STM8S207M8		
					STM8S007C8				
				STM8S208S6	STM8S208C6	STM8S208R6		Legend:	
32 K	STM8S207K6		STM8S207S6	STM8S207C6	STM8S207R6		Performance		
	STM8S105K6		STM8S105S6	STM8S105C6			line		
			STM8S005K6		STM8S005C6			Access line	
16 K			STM8S105K4	STM8S105S4	STM8S105C4			Application	
		STM8S903F3	STM8S903K3					specific line	
8 K	STM8S001J3	STM8S103F3	STM8S103K3					Value line	
		STM8S003F3	STM8S003K3					_	
4 K		STM8S103F2						Din sount	
	8-pin	20-pin	32-pin	44-pin	48-pin	64-pin	80-pin	Pin count	
	S0	TSSOP/QFN/SO	LQFP/QFN/SDIP	LQFP	LQFP	LQFP	LQFP		

Software Tools

STMCube™ initiative is coming to the whole STM8 family!

Our STM8CubeMX is a user-friendly software tool that significantly reduces

development effort time and seet. It includes an STM8 selector tool that fin

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.







Hardware Tools



STM8/128-EVAL STM8SVL-DISCOVERY STM8S-DISCOVERY STM8-S08-DISCO



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