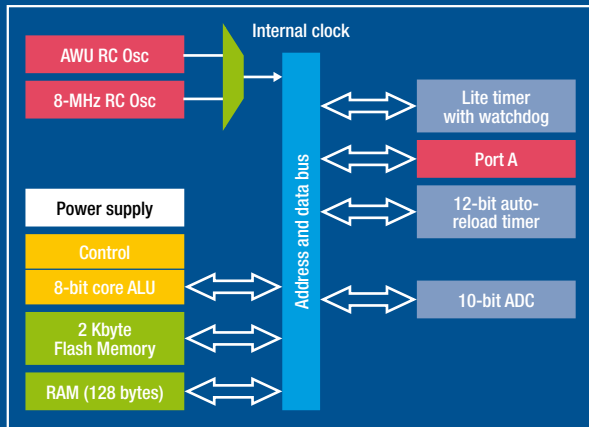


# ST7FOX

## Simple microcontroller solutions

Highly cost-effective 8-bit microcontroller  
From 2- to 8-Kbytes embedded Flash with 8 to 32 pins

### ST7FOXU0 block diagram



The ST7FOX 8-bit microcontroller family is intended for highly cost-sensitive products such as air-conditioning, electric bicycles (e-bikes), small appliances, consumer products and sensors.

The family includes devices with 2- to 8-Kbytes of on-chip Flash memory and with 8- to 32-pin through hole or surface mount packages.

The set of features and price positioning enable use of MCUs in place of electro-mechanical or discrete solutions.

**A simple microcontroller definition and free development toolset for the best cost optimization.**

### Key features

- 5 V power supply
- 2- to 8-Kbyte Flash memory
- 8- to 32-pins in surface or through hole mount packages
- Precise internal RC (calibration required)
- Flash memory with up-to-date architecture
- Fast 10-bit A/D converter
- 8-, 12- and 16-bit timers
- I<sup>2</sup>C, SPI communication interfaces
- Embedded debug module

### Key benefits

- Up to five power saving modes
- Simplified inventory management
- Free development tool offer
- Extremely cost effective
- Low-cost debugging hardware

### Targeted applications

- Small appliances
- e-bikes
- Consumer appliances
- Front panel controls
- Thermostats
- Sensors
- Companion chips

## ST7FOX device summary

Part number	Flash (byte)	RAM (byte)	A/D inputs	I/O (high sink)	Voltage	Temperature	Package
ST7FOXU0M6	2 K	128	5 x 10 bit	6 (5)	5V +/-10 %	-40 °C/+85 °C	S08
ST7FOXU0B6	2 K	128	5 x 10 bit	6 (5)	5V +/-10 %	-40 °C/+85 °C	DIP8
ST7FOXF1M6	4 K	384	6 x 10 bit	17 (7)	5V +/-10 %	-40 °C/+85 °C	S020
ST7FOWF1B6	4 K	384	6 x 10 bit	17 (7)	5V +/-10 %	-40 °C/+85 °C	DIP20
ST7FOXK1T6	4 K	384	10 x 10 bit	24 (8)	5V +/-10 %	-40 °C/+85 °C	LQFP32
ST7FOXK1B6	4 K	384	10 x 10 bit	24 (8)	5V +/-10 %	-40 °C/+85 °C	SDIP32
ST7FOXK2T6	8 K	384	10 x 10 bit	24 (8)	5V +/-10 %	-40 °C/+85 °C	LQFP32
ST7FOXK2B6	8 K	384	10 x 10 bit	24 (8)	5V +/-10 %	-40 °C/+85 °C	SDIP32

## Free development environment

The range of free software and low-cost hardware tools for ST7FOX provides exceptional cost effectiveness

- Free integrated development environments and programming interfaces
  - ST7 Toolset – ST7 Visual Develop (STVD7), ST7 Visual Programmer (STVP7)
  - Raisonance RKIT-ST7 – RIDE development software and RFlasher programming interface
- Free C compilers for output of up to 8 Kbytes of code from:
  - Cosmic Software ([www.cosmic-software.com](http://www.cosmic-software.com))
  - Raisonance ([www.raisonance.com](http://www.raisonance.com))
- Low-cost in-circuit debugger/programmers
  - RLink – USB host interface, supported by ST7 Toolset and RKIT-ST7
  - ST7-STICK – parallel host interface, supported by ST7 Toolset



## A little effort for all the precision you need

With ST7FOX, a little effort goes a long way in reducing tool cost and fine tuning device performance. At [www.st.com/st7fox](http://www.st.com/st7fox), get all the information needed to:

- Build the ST7-STICK for in-circuit debugging and programming using the free ST7 Toolset
- Calibrate the internal RC for applications requiring higher clock accuracy

In addition, users have free access to ST7 software libraries, user groups and complete technical documentation.



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Full product information at [www.st.com](http://www.st.com)

Order code: FLST7FOX1207

