

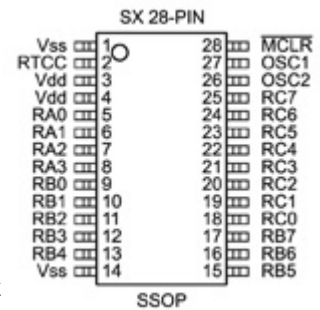


## SX Chip General Information

(<http://www.parallax.com/tabid/248/Default.aspx>)

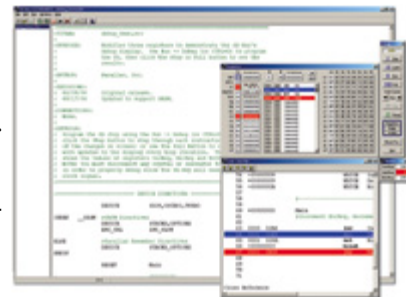
Parallax SX chips are 8-bit, high-speed microcontrollers with flash program memory, and in-system programming and debugging capability. Choose the SX for your design if you need:

- Speed - operating frequencies up to 75 MHz
- A pipelined instruction set - non-branching commands execute in a single cycle
- Jitter-free 3-cycle internal interrupt response
- Flexible I/O, with selectable internal pull-ups and TTL or CMOS logic level
- Schmitt-trigger or analog comparator support on select ports
- Outputs capable of sourcing/sinking 30 mA
- A built-in 8-bit real-time clock, watchdog timer, and brown-out detector
- Multi-input wakeup logic on 8 pins
- An internal RC oscillator configurable from 31.25 kHz to 4 MHz
- RoHS compliance
- Free programming software for Assembly and SX/B (BASIC)
- Generous production-quantity price breaks



## SX-Key Editor Software

This free software package is an integrated development environment for the SX line of microcontrollers, supporting every chip in production. Used in conjunction with the SX-Key or SX-Blitz programming tools, the user can write code, assemble/compile it, and download to the SX chip. The SX-Key USB also enables in-circuit source-level debugging, allowing the user to step through the code line-by-line or stop at set breakpoints.



Also at the user's fingertips is an on-board programmable clock. The frequency output of this clock is adjusted from the software IDE with a slider bar between 4 and 100 MHz.

The SX-Key Editor Software is compatible with Windows 98/NT/2K/XP/Vista platforms. Obtain the latest version free from the SX Software and Documentation Downloads page.

## SX/B Compiler

SX/B is a BASIC compiler designed for the Parallax SX family of microcontrollers, with two specific goals in mind:

1. Expedite the task of the professional engineer by creating a simple, yet robust high-level language for the SX microcontroller. This allows SX-based projects to be prototyped and coded quickly.
2. Assist the student programmer wishing to make the transition from pure high-level programming

(i.e. BASIC Stamp) to low-level programming (SX assembly language).

The SX/B compiler is built right into the free SX-Key IDE software and supports the entire series of SX chips. BASIC keywords are highlighted automatically within the editor. The help file has a comprehensive list of all of the SX/B commands and many examples of their use. Interfacing with other devices is easy because SX/B has high-level commands for Serial, SPI, I2C, and 1-Wire.

