SX

Fastest 8-bit Microcontroller in the World

50 MIPS Performance

- DC-50MHz operation
- 1 instruction per clock (branches 3)
- 20ns instruction cycle, 60ns interrupt response

E²Flash Program Memory

- In-system programming via OSC pins
- Internal access time of 12ns provides single cycle access
- E²Flash rated for 10,000 cycles

Fast Interrupts

- Hardware context save/restore of PC, W, STATUS, and FSR
- Jitter-free 3-cycle interrupt response
- RB pins provide interrupt/wakeup-on-change

Flexible I/O

- All pins individually programmable as inputs or outputs
- Inputs are TTL or CMOS level selectable
- All pins have selectable internal pull-ups (~20kΩ to VDD)
- RB and RC input pins selectable as Schmitt Trigger
- All outputs capable of sinking/sourcing 30ma
- RA outputs have symmetrical drive (same Vdrop +/-)
- Analog comparator on RB (RBO out, RB1 in-, RB2 in+)

Component Reduction

- Internal oscillator (off, 4MHz-$2^{0\text{-}7}$+/–8%) lowers EMI and power consumption
- Built-in brown-out detector (4.0V, enabled/disabled)
- Power-on-reset, multi-input wakeup

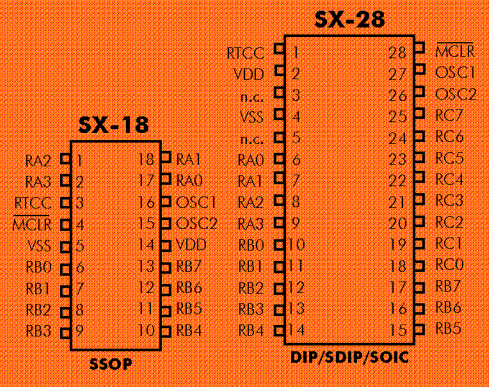
Designed for PIC16C5x® Compatibility With Enhancement

- E²Flash and RAM are fuse-reduceable to model '54 through '58
- Ten new instructions for improved code efficiency
- New high-speed interrupts that are easy to use
- Selectable 8-level hardware stack
- C flag fuse-selectable as input to add and subtract operations
- W mappable into RTCC space for increased accessibility
- Code memory is run-time readable (fast lookups & '98 UL compliance)
- Turbo fuse enables 1:1 oscillator to internal clock
- Order-of-magnitude performance increase @ fractional power per MIPS

General

- E²Flash code memory - 2048 x 12
- RAM registers - 136 bytes
- Operating voltage - 3.3 to 6.25V
- Only 15mA @ 20MHz, 3.3V; 40mA @ 50MHz, 5V
- DIP-18/28, SOIC-18/28, SSOP-20, and SSOP-28 packages
- Complete tools available from Parallax, Inc. (http://parallaxinc.com)

Introducing the SX series of 8-bit CMOS microcontrollers from Scenix Semiconductor. The SX incorporates a multitude of advanced features - each implemented with a practical understanding of microcontroller applications. Let the blazing speed of the SX propel your next project into the 21st century.



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