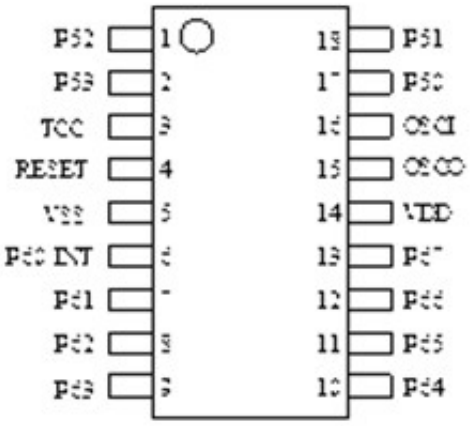
General Description

ET8656 is an 8-bit microprocessor with low-power and high-speed CMOS technology. Integrated into a single chip are on-chip watchdog timer (WDT), RAM, ROM, real time clock/counter, external and interrupt, power down mode, and tri-state I/O.

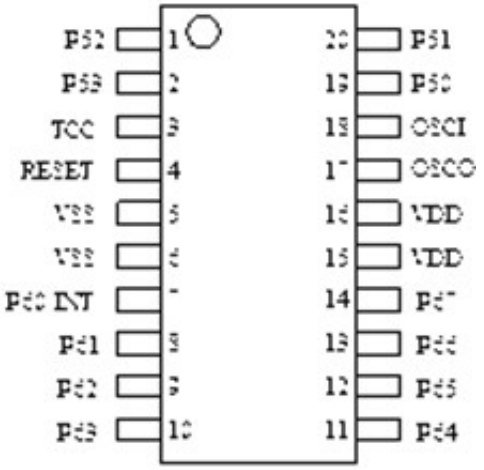
Features

- Operating voltage range: 2.3V~5.5V
- Operating temperature range: 0℃~70℃
- Operating frequency rang (base on 2 clocks):
  - Crystal mode: DC~20MHz (5V), DC~8MHz (3V), DC~4MHz (2.3V)
  - ERC mode: DC~4MHz (5V), DC~4MHz (3V), DC~4MHz (2.3V)
- Low power consumption:
  - Less than 2.0 mA at 5V/4MHz
  - Typically 15 μA at 3V/32KHz
  - Typically 1 μA during sleep mode
- 1K×13 bit on chip ROM
- One configuration register to accommodate user's requirements
- 48×8 bits on chip registers (SRAM, general purpose register)
- 2 bi-directional I/O ports
- 5 level stacks for subroutine nesting
- 8-bit real time clock/counter (TCC) with selective signal sources, trigger edges, and overflow interrupt
- Two clock per instruction cycle
- Power down (SLEEP mode)
- Three available interruptions
  - TCC overflow interrupt
  - Input-port status changed interrupt (wake up from sleep mode)
  - External interrupt
- Programmable free running watchdog timer
- 8 programmable pull-high pins
- 7 programmable pull-down pins
- 8 programmable open-drain pins
- 2 programmable R-option pins
- 99.9% single instruction cycle commands
- The transient point of system frequency between HXT and LXT is around 400KHz
- Package:
  - DIP18 (ET8656P)
  - SOP18 (ET8656M)
  - SSOP20 (ET8656S)

- **Pin Configuration**



DIP18/SOP18



SSOP20