C8051T614
25 MIPS, 8 kB EPROM, Mixed-Signal MCU

Analog Peripherals

Comparator
- Programmable hysteresis and response time
- Configurable as interrupt or reset source
- Low current ($<$ 0.5 µA)

Memory
- 1280 bytes internal data RAM
- 8kB byte-programmable EPROM code memory

On-Chip Debug
- C8051F310 can be used as in-system code development platform; complete development kit available
- On-chip debug circuitry facilitates full speed, non-intrusive in-system debug

Supply Voltage 1.8 to 3.6 V
- On-chip LDO regulator for core supply
- On-chip voltage supply monitor

Temperature Range: –40 to +85 °C

High-Speed 8051 µC Core
- Pipe-lined instruction architecture; executes 70% of instructions in 1 or 2 system clocks
- 25 MIPS peak throughput with 25 MHz clock
- Expanded interrupt handler

Digital Peripherals
- 29 port I/O; All 5 V tolerant with high sink current
- Hardware enhanced UART, SPI™, and SMBus™ serial ports
- Four general purpose 16-bit counter/timers
- 16-Bit programmable counter array (PCA) with five capture/compare modules
    - PWM
    - Rising / falling edge capture
    - Frequency output
    - Software timer

Clock Sources
- Internal oscillator: 24.5 MHz with ±2% accuracy supports UART operation
- External oscillator: CMOS clock or external capacitor
- Can switch between clock sources on-the-fly; useful in power saving modes

Package
- 32-pin LQFP

Development Kit: C8051T610DK