



WT50F5

8-bit μ C with 8KB Flash Memory, an 8-CH 12-bit A/D Converter and 16x4 LCD Driver

DESCRIPTION

The WT50F5 is a high-performance, low-cost, CMOS 8-bit single-chip microcontroller with 8Kbytes on-chip flash memory, an 8-channel 12-bit analog to digital converter and 16x4 LCD driver. This chip is suitable for variable applications, especially where analog signal (sensor output) to digital signal conversion, LCD display and short development cycle are required, including industrial control, consumer, communications, and security products.

This chip has 8-bit CPU, RAM, flash memory, I/Os, dual 16-bit timer/counters, interrupt controller, 16x4 LCD driver and an 8-channel 12-bit A/D converter. To be suitable for portable battery-powered applications, a power saving function is included.

FEATURES

- ◆ 8-bit single chip microcontroller with 8K bytes flash memory and 384bytes SRAM
- ◆ Wide voltage operating range from 2.7 V to 5.5 V
- ◆ On-chip RC oscillator runs at 2MHz and crystal oscillator can run up to 6.0 MHz
- ◆ 6 interrupt sources (external:1; internal:5) ; all sources have independent latches each and multiple interrupt control is available
- ◆ I/O port (32 pins)
 - ◆ Port P0 8 pins (shared with analog inputs; 4 pins with 20 mA sink current)
 - ◆ Port P1 8 pins (20 mA sink current)
 - ◆ Port P2 8 pins (shared with SEG9~SEG16)
 - ◆ Port P3 8 pins (shared with SEG1~SEG8)
- ◆ Interval Timer (Internal time base generator)
- ◆ Operating current 2mA/4MHz@5V; providing standby mode (OSC is stopped and current consumption < 1 uA@5V) and key wake-up mode
- ◆ Watchdog timer
- ◆ Dual PWM
- ◆ Dual 16-bit timer/counters
- ◆ A/D converter module
 - ◆ 8 analog inputs multiplexed into one A/D converter
 - ◆ Sample and hold
 - ◆ 20 μ S conversion time/per channel



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- ◆ 12-bit resolution with ± 2 LSB accuracy
- ◆ External reference input, AD_{VRF}
- ◆ LCD driver (automatically display)
 - ◆ LCD direct drive (max. 8-digit display at 1/4 duty)
 - ◆ 1/4, 1/3, 1/2 duties and 1/2, 1/3 biases can be selected by programming
- ◆ Programming lock for software security; read/write protection (signature compare)
- ◆ Package: 40-pin PDIP



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PACKAGE PIN ASSIGNMENT

