1. General Description

This EPROM-Based 8-bit micro-controller uses a fully static CMOS technology process to achieve higher speed and smaller size with the low power consumption and high noise immunity. On chip memory includes 2K words of ROM, and 128 bytes of static RAM.

2. Features

The followings are some of the features on the hardware and software :

? Fully CMOS static design

? 8-bit data bus

? On chip EPROM size : 2.0 K words

? Internal RAM size : 160 bytes

(128 general purpose registers, 32 special registers)

? 37 single word instructions

? 14-bit instructions

? 8-level stacks

? Operating voltage : 2.5 V ~ 5.5 V (PRD Disable)

4.5 V ~ 5.5 V (PRD Enable)

? Operating frequency : DC ~ 20 MHz

? The most fast execution time is 200 ns under 20 MHz in all single cycle instructions except the branch instruction

? Addressing modes include direct, indirect and relative addressing modes

? Power-on Reset

? Power edge-detector Reset

? Power range-detector Reset

? Sleep Mode for power saving

? Capture,Compare,PWM module

? Synchronous serial port with SCM

? 8 interrupt sources:

-External INT pin

-TMR0 timer,TMR1 timer,TMR2 timer

-A/D conversion completion

-PortB<7:4>interrupt on change

-CCP,SCM

? A/D converter module:

-5 analog inputs multiplexed into one A/D converter

-8-bit resolution

? TMR0 : 8-bit real time clock/counter

TMR1 : 16-bit real time clock/count

TMR2 : 8-bit clock/counter(internal)

? 4 types of oscillator can be selected by programming option:

RC－Low cost RC oscillator

LFXT－Low frequency crystal oscillator

XTAL－Standard crystal oscillator

HFXT－High frequency crystal oscillator

? On-chip RC oscillator based Watchdog Timer(WDT)

? 22 I/O pins with their own independent direction control

3. Applications

The application areas of this 10P72 range from appliance motor control and high speed auto-motive to low power remote transmitters/receivers, pointing devices, and telecommunications processors, such as Remote controller, small instruments, chargers, toy, automobile and PC peripheral … etc.