

**8-bit Microcontroller with LCD Driver**

**General Description**

MC96F7816 is a CMOS 8 bit MCU which provides a 16K bytes FLASH-ROM and 512 bytes RAM.

It has following major features,

12 bit ADC : It has 8 ch A/D converter which can be used to measure minute voltage.

Power Consumption – Sub Active Mode: To decrease the power consumption, It can be operated with sub-clock (32.768kHz).

**Features**

- **8-Bit CISC Core**
  - 8051 Compatible, 2 clock per cycle
- **16K Bytes On-chip FLASH**
  - Endurance: 100,000 cycles
- **512 Bytes SRAM**
- **12-bit A/D Converter: 8ch**
- **71 I/O Pins**
- **8-bit Timer x 2ch, 16-bit Timer x 2ch**
- **PWM: 8bit x 1ch, 16bit x 2ch**
- **SIO, UART**
- **Buzzer: 8bit x 1ch**
- **Watch Timer, Watchdog Timer, Basic Timer**
- **Interrupt Source**
  - 12 External Interrupts, 10 Internal Interrupts
- **LCD: 30SEG x 8COM, 1/2/3/4/5/6/8COM selectable**
- **Power on Reset**
- **Low Voltage Indicator: 13 level (2.0V~4.4V)**
- **Power Down Mode: Sleep, Stop**
- **Oscillator: 0.4~12MHz(Crystal), 4MHz±1.5%(IRC)**
- **Supply Voltage & Frequency**
  - 1.8V to 5.5V at 0.4~4.2MHz
  - 2.7V to 5.5V at 0.4~10MHz
  - 3.0V to 5.5V at 0.4~12MHz
- **Operating Temperature: -40°C to +85°C**
- **Package Type**
  - 80-MQFP, 80-LQFP

**Applications**

- LCD Remote Control
- Health Care
- Home Appliances

**Block Diagram**

