

EPROM/EEPROM 8-Bit Microcontroller Product Brief

Devices included:

- PIC16C820
- PIC16C821
- PIC16C822

High Performance RISC CPU:

- Simple instruction set - 35 total
- All single-cycle instructions (200 ns), except for program branches which are two-cycle
- Operating speed:
 - DC - 20 MHz clock input
 - DC - 200 ns instruction cycle

Device	EPROM Program	EEPROM Data	RAM Data
PIC16C820	512	64	80
PIC16C821	1K	64	80
PIC16C822	2K	64	128

- PIC16CXX MCU core
- 14-bit program word
- 8-bit data word
- Interrupt capability
- 18 special function hardware registers
- Eight levels of hardware stack
- Direct, Indirect and Relative addressing modes

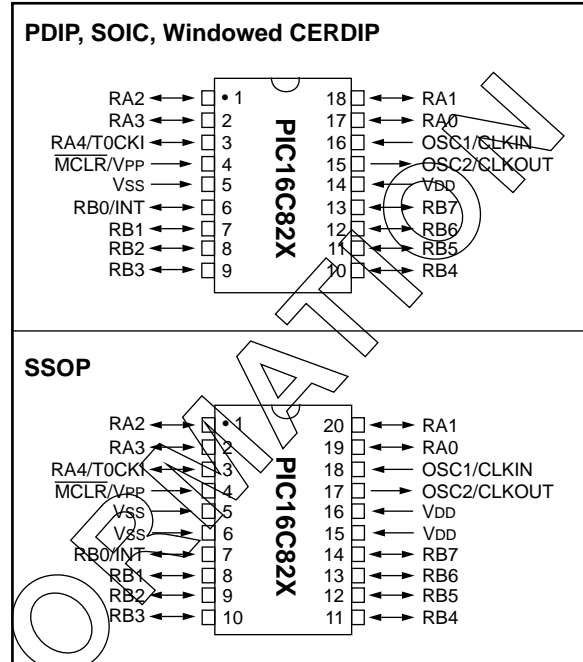
Peripheral Features:

- 13 I/O pins with individual direction control
- High current sink/source for direct LED drive
- Timer0: 8-bit timer/counter with 8-bit programmable prescaler

Special Microcontroller Features:

- ★ 64 bytes data EEPROM
- Power-on Reset (POR)
- Power-up Timer (PWRT)
- Oscillator Start-up Timer (OST)
- Watchdog Timer (WDT) with its own on-chip RC oscillator for reliable operation
- Programmable code protection
- Power saving SLEEP mode
- Selectable oscillator options
- ★ Serial in-circuit programming (via two pins)
- Four user programmable ID locations

Pin Diagram



CMOS Technology:

- ★ Low-power, high-speed CMOS EPROM/EEPROM technology
- Fully static design
- Wide operating voltage range
 - 2.5V to 6.0V
- Commercial, industrial and automotive temperature ranges
- Low power consumption
 - < 2.0 mA @ 5.0V, 4.0 MHz
 - 15 μ A typical @ 3.0V, 32 kHz
 - < 1.0 μ A typical standby current @ 3.0V

Applications:

- Remote Keyless Entry (RKE)
- Smart Sensors / Smart Cards
- Automobile Immobilizer
- Home Security
- RF Tags
- Settop converter boxes
- Instrumentation
- Garage door opener receiver

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