

28-Pin Enhanced FLASH Microcontroller Product Brief

High Performance RISC CPU:

- Only 35 single word instructions to learn
- All single cycle instructions except for program branches, which are two cycle
- Operating speed: DC - 20 MHz clock input
DC - 200 ns instruction cycle
- Up to 8K x 14 words of FLASH Program Memory,
Up to 368 x 8 bytes of Data Memory (RAM),
Up to 256 x 8 bytes of EEPROM data memory
- Pinout compatible to other 28-pin PIC16CXXX and
PIC16FXXX microcontrollers

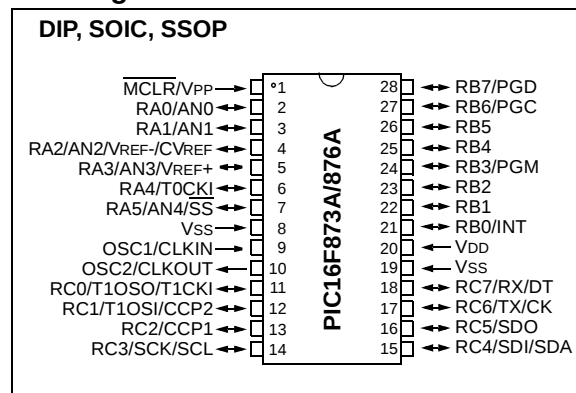
Peripheral Features:

- Timer0 module: 8-bit timer/counter with 8-bit prescaler
- Timer1 module: 16-bit timer/counter with
prescaler, can be incremented during SLEEP via
external crystal/clock
- Timer2 module: 8-bit timer/counter with 8-bit
period register, prescaler and postscaler
- Two Capture, Compare, PWM modules
- Master Synchronous Serial Port (MSSP) module.
Two modes of operation:
 - 3-wire SPI™ (supports all 4 SPI modes)
 - I²C™ Master and Slave mode
- Addressable USART module:
 - Supports interrupt on Address bit
- High Sink/Source Current: 25 mA

Analog Features:

- 10-bit 5-ch Analog-to-Digital Converter (A/D)
- Brown-out Reset (BOR)
- Analog Comparator module with:
 - Two analog comparators
 - Programmable on-chip voltage reference
(VREF) module
 - Programmable input multiplexing from device
inputs and internal voltage reference
 - Comparator outputs are externally accessible

Pin Diagram:



Special Microcontroller Features:

- 100,000 erase/write cycle Enhanced FLASH
program memory typical
- 1,000,000 erase/write cycle Data EEPROM
memory typical
- Data EEPROM Retention > 40 years
- Self reprogrammable under software control
- In-Circuit Serial Programming™ (ICSP™) via two pins
- Single supply 5 V In-Circuit Serial Programming
- Watchdog Timer (WDT) with its own on-chip RC
oscillator for reliable operation
- Programmable code protection
- Power saving SLEEP mode
- Selectable oscillator options
- In-Circuit Debug (ICD) via two pins

CMOS Technology:

- Low power, high speed FLASH/EEPROM technology
- Fully static design
- Wide operating voltage range (2.0 V to 5.5 V)
- Commercial and Industrial temperature ranges
- Low power consumption

Device	Program Memory		Data SRAM (Bytes)	EEPROM (Bytes)	I/O	10-bit A/D (ch)	CCP (PWM)	MSSP		USART	Timers 8/16-bit	Comparators
	Bytes	# Single Word Instructions						SPI	Master I ² C			
PIC16F873A	7.2K	4096	192	128	22	5	2	Yes	Yes	Yes	2 / 1	2
PIC16F876A	14.3K	8192	368	256	22	5	2	Yes	Yes	Yes	2 / 1	2

PIC16F873A/876A

NOTES:

Note the following details of the code protection feature on PICmicro® MCUs.

- The PICmicro family meets the specifications contained in the Microchip Data Sheet.
- Microchip believes that its family of PICmicro microcontrollers is one of the most secure products of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the PICmicro microcontroller in a manner outside the operating specifications contained in the data sheet. The person doing so may be engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as “unbreakable”.
- Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our product.

If you have any further questions about this matter, please contact the local sales office nearest to you.

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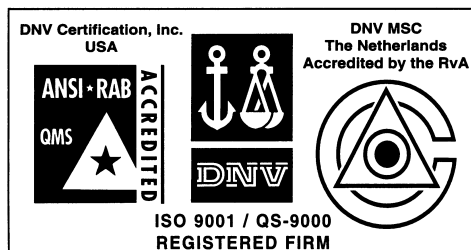
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