

8-Pin PICmicro® Microcontroller Family

Product Information

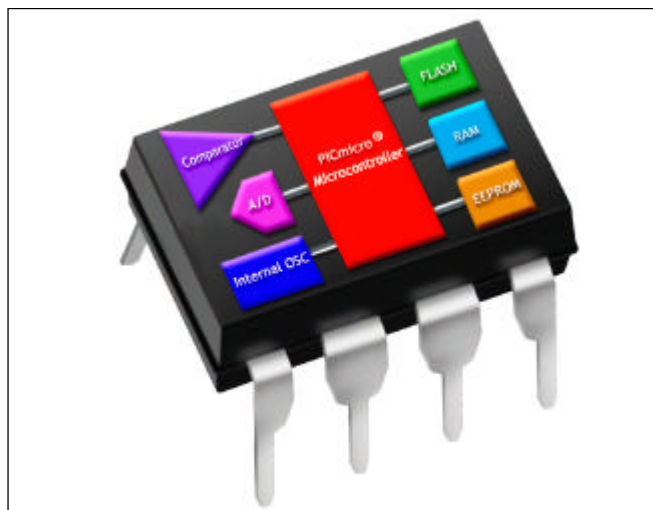
The Power of a PICmicro® MCU in an 8-pin Package

Microchip Technology continues to provide the electronic industry with innovative products that open a whole universe of applications that are smaller, faster, easier to use and more reliable. The 8-pin PICmicro family of products are used in an extremely wide range of everyday products, from toothbrushes, hair dryers, vacuum cleaners and rice cookers to industrial, automotive and medical products, such as nail guns, brake lights and medical dispensers. The thousands of designers and millions of products using the 8-pin PICmicro MCU's get the required results.

Many everyday applications are space and weight constrained and system designers traditionally had to rely on application specific integrated circuits (ASIC), or logic circuits to implement even the smallest function in an electronic design. Now, designers can implement the same, or even more functionality into an 8-pin microcontroller that is cost competitive and uses less board space. In addition, the designer gains the flexibility to add new features on a regular basis or adapt the design to changing requirements without hardware changes.

Flexibility to Satisfy a Broad Set of Requirements

With Microchip's offering of a whole family of 8-pin products, it is easy to find the right product for any application. Microchip offers the flexibility of choosing between various program memory options, such as FLASH, OTP and ROM.



In addition, Microchip also provides the ability to choose between a whole range of features from pure digital products to devices with Analog-to-Digital Converters (ADC), on-board EEPROM, Programmable Low Voltage Detect (PLVD), Brown-out Reset (BOR) and a comparator.

The high performance RISC architecture of the PICmicro MCU enables the system designer to perform the required embedded control functions with ease. Migrating from one product to the other and even into higher pin count devices is no problem, because all the devices are code and pin compatible, which enables designers to reuse existing code. In addition, Microchip's MPLAB® Integrated Development Environment, emulators and in-circuit debugging capability accelerates the development process to get products into the market faster. Once the product is in production, Microchip's PICmicro family of products is available and delivered on time.

Actual Example Applications

Battery Charger
Cattle Monitoring
Disco Lights
Dog Training Collar
Electric Iron
Flashlight for Police Car
Headlight Warning Buzzer

Hotel Safe
Intelligent Exit Sign
Light Flasher in Slot Machines
Medical Dispensing
Model Train Speed Controller
Nail Gun
Pizza Delivery Bag

Perfume Dispenser for Restrooms
Rice Cooker
Refrigerator Control Unit
Smart Card Reader
Toothbrush
Toys
Vacuum Cleaner



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Additional Information:

- Microchip's web site: www.microchip.com
- Microchip's Technical Library CD-ROM, Order No. DS00148
- Application Notes are available in:
 - Embedded Control Handbook, Order No. DS00092
 - Embedded Control Handbook Update 2000, Order No. DS00711
- Microchip's Quality Systems and Customer Interface System, Order No. DS00169

8-Pin PICmicro MCU Family

Device	Program Bytes	Memory Words	RAM Bytes	EEPROM Bytes	I/O Pins	ADC	Comparator	BOR	Timers	ICSP™	Comments
PIC12C508A	768	512x12	25	–	6	–	–	–	1x8-bit, 1-WDT	Yes	–
PIC12C509A	1536	1024x12	41	–	6	–	–	–	1x8-bit, 1-WDT	Yes	–
PIC12CE518	768	512x12	25	16	6	–	–	–	1x8-bit, 1-WDT	Yes	–
PIC12CE519	1536	1024x12	41	16	6	–	–	–	1x8-bit, 1-WDT	Yes	–
PIC12C671	1792	1024x14	128	–	6	4x8-bit	–	–	1x8-bit, 1-WDT	Yes	–
PIC12C672	3584	2048x14	128	–	6	4x8-bit	–	–	1x8-bit, 1-WDT	Yes	–
PIC12CE673	1792	1024x14	128	16	6	4x8-bit	–	–	1x8-bit, 1-WDT	Yes	–
PIC12CE674	3584	2048x14	128	16	6	4x8-bit	–	–	1x8-bit, 1-WDT	Yes	–
PIC12F629*	1792	1024x14	64	128	6	–	1	Yes	1x8-bit, 1x16-bit 1-WDT	Yes	ICD support
PIC12F675*	1792	1024x14	64	128	6	4x10-bit	1	Yes	1x8-bit, 1x16-bit 1-WDT	Yes	ICD support

*Contact your local sales office for availability.

Abbreviation: ADC = Analog-to-Digital Converter

WDT = Watchdog Timer

BOR = Brown-out Reset

ICD = In-circuit Debugger

Development Tools from Microchip

MPLAB® IDE	Integrated Development Environment (IDE) (Hardware/Software Project Manager)
MPASM™ Assembler	Universal PICmicro macro-assembler
MPLINK™ Object Linker/ MPLIB™ Object Librarian	Linker/ Librarian
MPLAB SIM Simulator	Software Simulator
C Compilers	Sold by third-party vendors (HI-TECH, IAR, CCS)
MPLAB ICE 2000	Full-featured modular in-circuit emulator
PICSTART® Plus Programmer	Entry-level development kit with programmer
PRO MATE® II Device Programmer	Full-featured, modular device programmer
ICD2	Low cost in-circuit debugger

Americas

Atlanta	(770) 640-0034
Boston	(978) 692-3848
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Microchip Technology Inc. • 2355 W. Chandler Blvd. • Chandler, AZ 85224-6199 • (480) 792-7200 • FAX (480) 792-9210

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