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Microchip Provides Industry's Broadest Line of Low-Power, High-Performance 8-bit Microcontrollers With 5V Operation

PIC18F "K22" Family Includes 16 Microcontrollers in 20- to 80-Pin Packages, With 1.8 - 5.5V Operation, Low Sleep and Dynamic Currents, Wide Variety of Peripherals

CHANDLER, Ariz.--(BUSINESS WIRE)-- Microchip Technology Inc. (NASDAQ: MCHP), a leading provider of microcontroller, analog, and Flash-IP solutions, today announced the industry's broadest line of low-power, high-performance 8-bit microcontrollers (MCUs). The PIC18F "K22" MCUs provide features such as operation from 1.8 to 5.5V, numerous communication channels, 8 to 128 KB Flash memory, and peripherals for mTouch(TM) capacitive touch-sensing applications. Other features include a 12-bit Analog-to-Digital Converter (ADC), multiple PWMs and additional timers. All of the new MCUs feature nanoWatt XLP technology for eXtreme Low Power operation, with industry-leading sleep currents down to 20 nA. Additionally, the MCUs provide a greater than 50% improvement in active current, over previous generations.

"Our early-adopter customers are excited about the expansion of our PIC18F 'K22' 8-bit MCU product line because of the scalability and low-cost migration path," said Steve Drehobl, vice president of Microchip's Security, Microcontroller and Technology Development Division. "Having a single family that addresses a wide range of requirements is a huge advantage to customers. It simplifies development, reduces design cycles and allows for easy migration in next-generation products."

The feature set of the PIC18F "K22" MCUs allows this family to be used in a wide variety of applications. The 5V capability of the family is ideal for applications that typically require robust operation or noise immunity. Battery-powered applications benefit from nanoWatt XLP technology, which reduces current draw and therefore extends battery life. Example applications include those in the industrial (e.g., metering, electronic door locks, cargo tracking, lighting, alarm systems); appliance (e.g., smart energy, dishwashers, refrigerators, HVAC controls); medical (e.g., diagnostic devices, portable medical meters); and automotive (e.g., lighting, dashboard instrument clusters, keyless entry, interior controls, garage-door openers) markets, among others.

K22 MCU Features

Part Number	Pins	Program Memory	Data EEPROM	RAM	I/O	ADC	Comparators	CCP/ECCP PWMs	CTMU for Cap. Touch	EUSART	MSSP (I2C (TM)/SPI)	Timers 8-bit/16-bit
PIC18F1XK22	20	8 - 16 KB	256B	256 - 512B	18	10-bit x 12 ch.	2	0/1	N	1	1	1/3
PIC18F2XK22	28	8 - 64 KB	256 - 1024B	0.5 - 4 KB	25	10-bit x 17 ch.	2	Up to 2/3	Y	2	2	Up to 3/4
		8 - 64	256 -	0.5		10-bit		Up to				

PIC18F4XK22	40/44	KB	1024B	- 4 KB	36	x 28 ch.	2	2/3	Y	2	2	Up to 3/4
PIC18F6XK22	64	32 - 128 KB	1024B	2 - 4 KB	53	12-bit x 16 ch.	3	Up to 7/3	Y	2	2	Up to 6/5
PIC18F8XK22	80	32 - 128 KB	1024B	2 - 4 KB	69	12-bit x 24 ch.	3	Up to 7/3	Y	2	2	Up to 6/5

Development Tool Support

Plug-In Modules (PIMs) for the PIC18LF45K22 (Part # MA160014, $25) and PIC18F87K22 (part # MA180028, $25) MCUs were also announced, today. The PIMs can be used with the PIC18 Explorer Board (part # DM183032, $99.99). Designers can also use Microchip's complete suite of standard development tools, including the user-friendly and free MPLAB(R) IDE and corresponding suite of emulators, programmers and development boards, along with the MPLAB C18 or HI-TECH C(R) compilers for PIC18 MCUs. For more information, visit the Microchip development tools Web site (http://www.microchip.com/get/T1L6).

Packaging, Pricing & Availability

The PIC18FXXK22 MCUs are available in PDIP, QFN, SOIC, SSOP and TQFP packages of various sizes, in pin counts ranging from 20 to 80. Prices start at $0.60 each in high volume. Samples and volume-production quantities are available, today. For further information, contact any Microchip sales representative or authorized worldwide distributor, or visit Microchip's Web site at http://www.microchip.com/get/7BPH.

About Microchip Technology

Microchip Technology Inc. (NASDAQ: MCHP) is a leading provider of microcontroller and analog semiconductors, providing low-risk product development, lower total system cost and faster time to market for thousands of diverse customer applications worldwide. Headquartered in Chandler, Ariz., Microchip offers outstanding technical support along with dependable delivery and quality. For more information, visit the Microchip Web site (http://www.microchip.com/get/U2SN).

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High-res photos and block diagrams available through editorial contact or Flickr (feel free to publish).

Photo: http://www.microchip.com/get/MRXC

PIC18F46K22 Block Diagram: http://www.microchip.com/get/B4J0

PIC18F87K22 Block Diagram: http://www.microchip.com/get/RAND

PIC18LF45K22 PIM: http://www.microchip.com/get/CCLQ

PIC18F87K22 PIM: http://www.microchip.com/get/C1VJ

PIC18Explorer Board: http://www.microchip.com/get/777W

Tags / Keywords: Microchip, MCHP, PIC, 8-bit, microcontroller, PIC18, MCHP, XLP, eXtreme Low Power, nanoWatt, mTouch, capacitive, touch sensing, user interface, MPLAB, PIC18FXXK22, K22

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