Sixteen-bit MCUs tout advanced analog integration, 5-V operation

Microchip added the PIC24F “KM” family to its 16-bit PIC microcontroller (MCU) portfolio. This family offers up to 16 KB Flash, 2 KB RAM and 512B EEPROM, along with advanced analog integration, in low pin-count options for cost-sensitive automotive, consumer, medical and industrial applications. The MCUs integrate a 12-bit ADC with threshold detection, 8-bit DACs for analog control loops and precision comparator references, and op amps to assist in sensor amplifications. The PIC24 “KM” MCUs feature the new Multiple-output Capture Compare PWM Module (MCCP) and Single-output Capture Compare PWM Module (SCCP) peripherals, which include integrated timers and advanced PWM control to enable motor-control, power-supply and lighting applications. The MCCP and SCCP modules combine timers, input captures, output compare and PWM functions in a single time base for optimal flexibility. These modules include 16/32-bit timer support, and can operate from a high-speed clock for higher resolution due to their ability to operate asynchronously. A Configurable Logic Cell (CLC) offers increased on-chip interconnection of peripherals. The CLC module helps in creating custom real-time logic functions on-chip and is supported by the CLC configuration tool, which helps in coding the circuit graphically instead of in assembly or C, thereby saving time for the programmers. The “KM” family includes support for both 3-V and 5-V applications.

Microchip Technology Inc., www.microchip.com [1]

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