

CORE-INDEPENDENT PERIPHERALS

8-bit MCU for CAN FD networks

Microchip Technology announced its PIC18 Q84 family. The micro-controller unit (MCU) series can be used to transmit and receive data through a CAN FD network.



Automotive designers can now increase system capabilities with CIPs while connected to a network (Source: Microchip)

The MCU series enables increased bandwidth and flexible data-rates in automotive applications like safety and communication, while further supporting the development of advanced driver assistance systems (ADAS), explained the company. Accompanied by an array of core independent peripherals (CIPs) that handle a variety of tasks without requiring CPU (central processing unit) intervention, the MCUs cuts both time and cost when connecting systems to a CAN FD network, said the company.

The family provides a solution for transporting sensor data to a CAN FD network, without the need for gateways or network switching techniques. In addition, its configurable CIPs enable to create custom hardware-based functions for automotive and industrial designs. Additional code is not required. Available peripherals include a 32-bit cyclic redundancy check with Scan (CRC/Scan) and a windowed watchdog timer (WWDT) for functional safety capabilities, and a joint test action group (JTAG) interface to implement industry-standard testing and debugging.

The MCUs offer both hardware and software support. Hardware includes a curiosity nano development board and a curiosity high pin count (HPC) development board. A plug-in module (PIM) is also available for the automotive networking development board and for use with Microchip development boards. Software includes the company's Mplab Code Configurator (MCC). The company also provides a family of CAN FD transceivers and CAN FD controllers.

"CAN FD will continue to play a critical role in delivering faster data transfer rates for applications, ranging from the connected car to industrial automation and smart homes," said Greg Robinson, associate vice president of marketing for Microchip's 8-bit micro-controller business unit. "Microchip is furthering the adoption of this protocol with our latest 8-bit PIC MCU family, helping designers create cost-effective network nodes at scale."

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