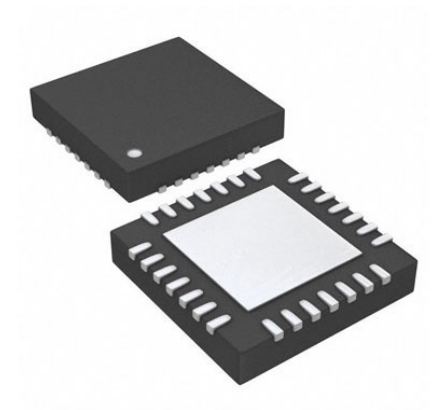


## Low-Power, High-Performance Microcontroller



Images are for reference only

[Inquiry](#)

<b>Manufacturer:</b>	<a href="#">Microchip Technology, Inc</a>
<b>Package/Case:</b>	VQFN-28
<b>Product Type:</b>	Embedded Processors & Controllers
<b>Lifecycle:</b>	Active

## General Description

The PIC18-Q84 products will be a full featured CAN FD (Flexible Data-Rate) product family that can be used in many automotive and industrial applications. The many communication peripherals found in the product family, such as CAN, SPI, I2C, two UARTs, can handle a wide range of wired and wireless (using external modules) communication protocols for intelligent applications. This combined with the Core Independent Peripherals integration capabilities enable functions for motor control, power supply, sensor, signal and user interface applications. Additionally, this family includes a 12-bit ADC with Computation and context switching (ADC3) extensions for automated signal analysis to reduce the complexity of the application.

## Key Features

CAN Flexible Data-Rate (FD) module:

Functional in CAN FD or CAN 2.0B modes

Eight Direct Memory Access (DMA) Controllers:

Data transfers capabilities

User programmable source and destination sizes

Hardware and software triggered data transfers

Vectored Interrupt Capability:

Selectable high/low priority

Fixed interrupt latency of three instruction cycles

Programmable vector table base address

Backwards compatible with previous interrupt capabilities

Analog-to-Digital Converter with Computation and Context Switching (ADC3):

Automated math functions on input signals:

Averaging, filter calculations, oversampling and threshold comparison

4 Separate Contexts (settings and results) saved and accessible separately

Contexts can be accessed through firmware or DMA

Five internal analog channels

Hardware Capacitive Voltage Divider (CVD) Support:

Adjustable sample and hold capacitor array

Guard ring digital output drive

Automates touch sampling and reduces software size and CPU usage when touch or proximity

8-Bit Digital-to-Analog Converter (DAC):

Two Comparators (CMP):

Four 16-Bit Pulse-Width Modulators (PWM):

Data Signal Modulator (DSM):

Programmable CRC with Memory Scan:

Reliable data/program memory monitoring for Fail-Safe operation (e.g., Class B)

Calculate 16-bit CRC over any portion of Program Flash Memory

Communication:

Five UART modules:

LIN master and slave, DMX mode, DALI gear and device protocols

SPI /I2C

Doze: CPU and Peripherals Running at Different Cycle Rates (typically CPU is lower)

Idle: CPU Halted While Peripherals Operate

Sleep: Lowest Power Consumption

Peripheral Module Disable (PMD):

Ability to selectively disable hardware module to minimize active power consumption of unused peripherals

JTAG: Supports boundary scan

## Recommended For You

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### **PIC16F84A-20/P**

Microchip Technology, Inc

DIP18

### **PIC16F54-I/P**

Microchip Technology, Inc

DIP

### **PIC18F2320-I/SP**

Microchip Technology, Inc

DIP28

**PIC18F2685-I/SP**

Microchip Technology, Inc  
SPDIP-28

**PIC16F767-I/SO**

Microchip Technology, Inc  
SOP

**PIC16F630-I/SL**

Microchip Technology, Inc  
SOP14

**PIC16F15345-I/SO**

Microchip Technology, Inc  
SOP20

**PIC16F84-04/P**

Microchip Technology, Inc  
DIP18

**PIC18F4320-I/PT**

Microchip Technology, Inc  
QFP

**PIC16C622A-04/P**

Microchip Technology, Inc  
DIP

**PIC16F84A-04/P**

Microchip Technology, Inc  
DIP18

**PIC18F2480-I/SP**

Microchip Technology, Inc  
DIP

**PIC16F628-04/P**

Microchip Technology, Inc  
DIP

**PIC16F877-20/L**

Microchip Technology, Inc  
PLCC44

**PIC16F676-I/P**

Microchip Technology, Inc  
DIP-14