

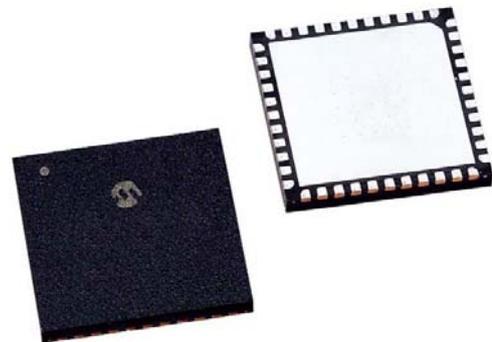


PIC24FJ64GB002_4 28_44Pin, 16-Bit, Flash Microcontrollers with USB On-The-Go (OTG) and nanoWatt XLP Technology

General Description:

The PIC24F architecture specification was created as a powerful extension of Microchip's existing RISC microcontroller portfolio. By giving users an even greater range of options for computational power and rich peripheral sets, it allows users to grow their applications. At the same time, the architecture was tailored to keep as much of the existing PICmicro® MCU feature set and nomenclature as possible, making it easy for applications to make the jump.

This family expands on the existing line of Microchip's 16-bit microcontrollers, combining an expanded peripheral feature set and enhanced computational performance with a new connectivity option: USB On-The-Go (OTG). The PIC24FJ64GB004 family provides a new platform for high-performance USB applications which may need more than an 8-bit platform, but do not require the power of a digital signal processor.



Key Features:

CPU Features

- Up to 16 MIPS performance
- 16 x 16 Hardware Multiply, Single Cycle Execution
- 32-bit x 16-bit Hardware Divider
- C Compiler Optimized Instruction Set System
- Internal oscillator support - 31 kHz to 8 MHz, up to 32 MHz with 4X PLL.
- On-chip LDO Voltage Regulator
- JTAG Boundary Scan and Flash Memory Program Support
- Fail-Safe Clock Monitor – allows safe shutdown if clock fails
- Watchdog Timer with separate RC oscillator nanoWatt Power Managed Modes
- Run, Idle and Sleep modes
- Deep sleep mode for lowest current consumption
- Multiple, Switchable Clock Modes for Optimum Performance and Power Management.

Analog Features

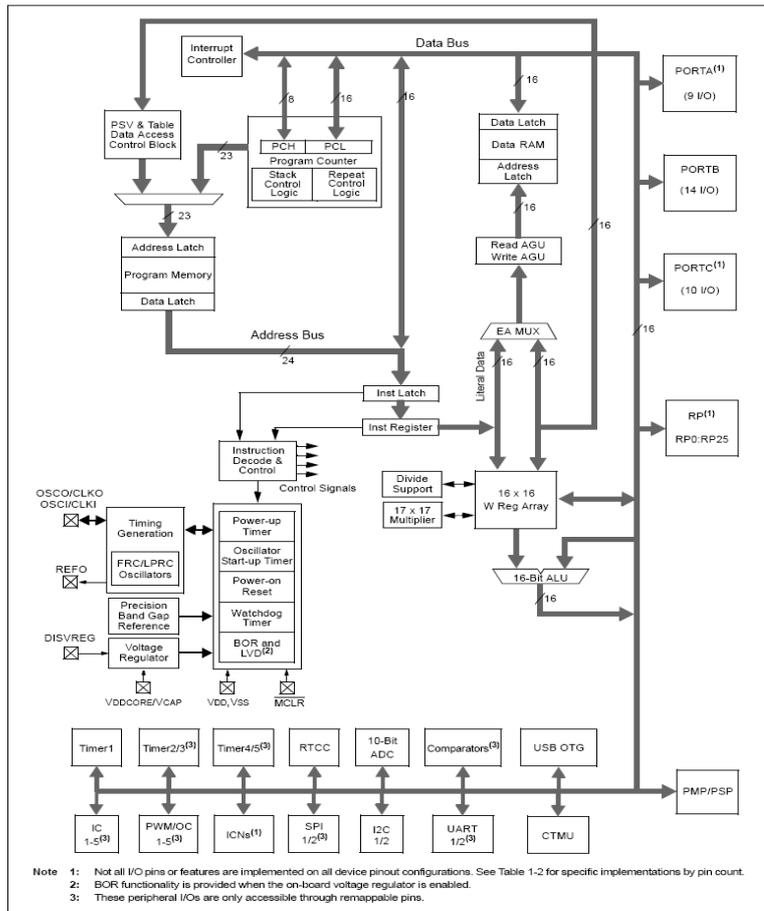
- 10-bit ADC, 9 channels, 500k samples per second

- 3 analog comparators Other Peripherals
- 2 UART Modules with LIN and IrDA® support, 4 Deep FIFO
- 2 SPI Modules with 8 Deep FIFO
- 2 I2C™ Modules with Master and Slave Modes
- Five 16-bit Timer Modules
- Up to 5 Input Capture and 5 Output Compare / PWM, all with dedicated timers
- Hardware RTCC, Real-Time Clock Calendar with Alarms
- PMP, Parallel Master Port, with 16 Address Lines, and 8/16-bit Data
- Peripheral Pin Select for remapping digital peripherals to I/O
- Charge Time Measurement Unit (CTMU) for capacitive touch interface.

Universal Serial. Bus

Features

- USB v2.0 On-the-Go compliant
- Dual role capable, can act as either Host or Device
- Low Speed(1.5Mb/s) and Full Speed(12 Mb/s) operation in Host mode
- Full speed USB operaton in Device mode
- Supports 32 endpoints
- On-chip USB transceiver



Applications:

- Medical Solutions
- Human Interface
- Motor Control
- Intelligent Power Supply
- Lighting
- Wired & Wireless Connectivity
- Mechatronics
- Automotive Solutions
- Low power remote transmitters/receivers

Related Products Information:

Mfr Part #	Farnell #	Newark #	Description
PIC24FJ64GB002-I/ML	1778483	07P9737	MCU, 16BIT, 64K FLASH, USB-OTG,28QFN
PIC24FJ64GB002-I/SO	1778484	07P9738	MCU, 16BIT, 64K FLASH,USB-OTG,28SOIC
PIC24FJ64GB002-I/SP	1778485	07P9739	MCU,16BIT,64K FLASH,USB-OTG, 28SPDIP
PIC24FJ64GB004-I/ML	1778486	45P4826	MCU, 16BIT, 64K FLASH, USB-OTG,44QFN
PIC24FJ64GB004-I/PT	1778487	45P4827	MCU, 16BIT, 64K FLASH,USB-OTG,44TQFP

