16 BIT MCU 64LD 40 MIPS 128KB FLASH GP, -40C to +85C, 64-TQFP, TRAY,Microcontrollers (MCU) 40MIPS 128KB

Manufacturers	Microchip Technology, Inc
Package/Case	TQFP-64
Product Type	Embedded Processors & Controllers
RoHS	Rohs
Lifecycle	

Images are for reference only

Please submit RFQ for PIC24HJ128GP506-I/PT or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The PIC24H 16-bit device family employs a powerful 16-bit architecture, ideal for applications that rely on high-speed, repetitive computations, as well as control.The devices are pin compatible with the dsPIC33F family of devices, and also share a very high degree of compatibility with the dsPIC30F family devices. This allows seamless migration options from/to PIC24F, dsPIC30F and dsPIC33F devices

Features

Operating Conditions

Up to 40 MIPS operation

3.0V to 3.6V, -40ºC to +150ºC, DC to 20 MIPS

3.0V to 3.6V, -40ºC to +125ºC, DC to 40 MIPS

High-Efficiency PIC24H core

Code-efficient (C and Assembly) architecture

16-bit wide data path, 24-bit wide instructions

Linear program memory addressing up to 4M instruction words

Single-cycle mixed-sign MUL plus hardware divide

16 x 16 multiply operations

32/16 and 16/16 divide operations

Clock Management

Programmable PLLs and oscillator clock sources

Fail-Safe Clock Monitor (FSCM)

Independent Watchdog Timer (WDT)

Fast wake-up and start-up

Power Management

Low-power management modes (Sleep, Idle, Doze)

Integrated Power-on Reset and Brown-out Reset

1.35 mA/MHz dynamic current (typical)

55 µA IPD current (typical)

Advanced Analog Features

Two ADC modules: - Configurable as 10-bit, 1.1 Msps with four S&H or 12-bit, 500 Ksps with one S&H - 18 analog inputs on 64-pin devices and up to 32 analog inputs on 100-pin devices

Flexible and independent ADC trigger sources

Timers/Output Compare/Input Capture

Up to nine 16-bit timers/counters. Can pair up to make four 32-bit timers

Eight Output Compare modules configurable as timers/counters

Eight Input Capture modules

Communication Interfaces

Two UART modules (10 Mbps) - With support for LIN 2.0 protocols and IrDA®

Two 4-wire SPI modules (15 Mbps)

Up to two I2C™ modules (up to 1 Mbaud) with SM Bus support

Enhanced CAN (ECAN) module (1 Mbaud) with 2.0B support

Data Converter Interface (DCI) module with I2S codec support

Input/Output

Sink/Source up to 10 mA (pin specific) for standard VOH/VOL, up to 16 mA (pin specific) for nonstandard VOH1

5V-tolerant pins

Selectable open drain, pull-ups, and pull-downs

Up to 5 mA overvoltage clamp current

External interrupts on all I/O

Debugger Development Support
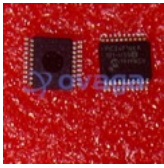
In-circuit and in-application programming

Two programs and two complex data breakpoints

IEEE 1149.2-compatible (JTAG) boundary scan
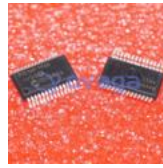
Trace and run-time watch

Related Products

PIC24F16KA101-I/SS

Microchip Technology, Inc

SSOP-20

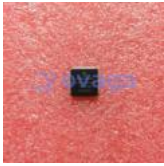**PIC16F1936-I/SS**

Microchip Technology, Inc

SSOP-28

PIC16F1938-I/SP

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PDIP-28

PIC18F23K22-I/SP

Microchip Technology, Inc

SPDIP-28

PIC18F6520-I/PT

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TQFP-64

PIC18F2620-I/SP

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SPDIP-28

PIC18F2620-I/SO

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SOIC-28

PIC18F97J60T-I/PT

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TQFP-100