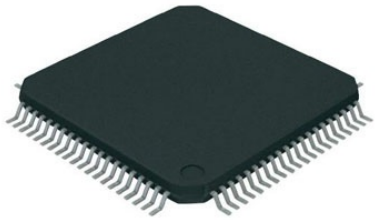
PIC24HJ128GP504-I/PT

Data Sheet

16 BIT MCU/DSP 44LD 40MIPS 128KB FLASH, -40C to +85C, 44-TQFP, TRAY,Microcontrollers (MCU) 16B MCU 128KB DMA 40MIPS

Manufacturers	Microchip Technology, Inc
Package/Case	TQFP-44
Product Type	Embedded Processors & Controllers
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for PIC24HJ128GP504-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-bitarchitecture, ideal for applications that rely on high-speed, repetitivecomputations, as well as control. The devices are pin compatible with thedsPIC33F family of devices, and share a very high degree of compatibility withthe dsPIC30F family devices. This allows seamless migration options from/toPIC24F, 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

Modified Harvard architecture

C compiler optimized instruction set

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

Single-cycle MUL plus hardware divide

16 x 16 multiply operations

32/16 and 16/16 divide operations

Up to ±16-bit shifts for up to 40-bit data

Clock Management

2% internal oscillator

Programmable PLL and oscillator clock sources

Fail-Safe Clock Monitor (FSCM)

Independent Watchdog Timer

Low-power management modes

Fast wake-up and start-up

Advanced Analog Features

10/12-bit ADC with 1.1Msps/500 Ksps conversion rate: - Up to 13 ADC input channels and four S&H

Flexible/Independent trigger sources

150 ns Comparators: - Up to two Analog Comparator modules

4-bit DAC with two ranges for Analog Comparators

Input/Output

Software remappable pin functions

5V-tolerant pins

Selectable open drain and internal pull-ups

Up to 5 mA overvoltage clamp current/pin

Multiple external interrupts

System Peripherals

Cyclic Redundancy Check (CRC) module

Up to five 16-bit and up to two 32-bit Timers/ Counters

Up to four Input Capture (IC) modules

Up to four Output Compare (OC) modules

Real-Time Clock and Calendar (RTCC) module

Communication Interfaces

Parallel Master Port (PMP)

Two UART modules (10 Mbps) - Supports LIN 2.0 protocols - RS-232, RS-485, and IrDA® support

Two 4-wire SPI modules (15 Mbps)

I2C module (100K, 400K and 1Mbaud) with SM Bus support

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

Direct Memory Access (DMA)

8-channel hardware DMA with no CPU stalls or overhead

Most peripherals support DMA

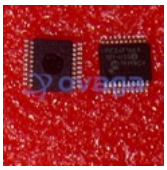
Debugger Development Support

In-circuit and in-application programming

Two program breakpoints

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

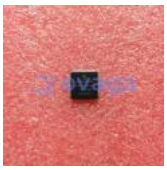
Microchip Technology, Inc

PDIP-28

PIC18F23K22-I/SP

Microchip Technology, Inc

SPDIP-28



PIC18F6520-I/PT

Microchip Technology, Inc

TQFP-64

PIC18F2620-I/SP

Microchip Technology, Inc

SPDIP-28

PIC18F2620-I/SO

Microchip Technology, Inc

SOIC-28

PIC18F97J60T-I/PT

Microchip Technology, Inc

TQFP-100