

PIC/DSPIC Microcontroller, PIC24 Family PIC24EP GU Series Microcontrollers, PIC24, 16bit, 140 MHz

Manufacturers	Microchip Technology, Inc
Package/Case	TQFP-100
Product Type	Embedded Processors & Controllers
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for PIC24EP512GU810-I/PT or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

Microchip's PIC24E general purpose microcontroller family features the high speed 70 MIPS core with excellent performance and code density. It offers superior ADC performance, enhanced CAN communication, easier graphic display interface through 8-bit parallel master port and up to 15 DMA channels for extensive data movement. These devices are available in various packages and with extended (125°C) temp option.

Features

Operating Range

3.0V to 3.6V, -40°C to +85°C, DC to 70 MIPS

3.0V to 3.6V, -40°C to +125°C, DC to 60 MIPS

PIC24E MCU Core

Modified Harvard architecture

C compiler optimized instruction set

16-bit wide data path

24-bit wide instructions

16 x 16 multiply operations

32/16 and 16/16 divide operations

Communication Interfaces

USB 2.0 OTG-Compliant Full-Speed Interface

Two CAN™ modules (1 Mbaud)

Four UART modules (15 Mbps) supports LIN/J2602 protocols and IrDA

Four 4-Wire SPI modules (15 Mbps)

Two I2C modules (up to 1 Mbaud) with SMBus Support

Data Converter Interface (DCI) module with Support for I2S and Audio Codecs

PPS to allow Function Remap

Parallel Master Port (PMP)

Programmable Cyclic Redundancy Check (CRC)

Advanced Analog Features

Two independent ADC module

One ADC Configurable as 10-bit, 1.1 Msps with four S&H or 12-bit, 500 ksps with one S&H

Second 10-bit ADC has 1.1 Msps with four S&H

Eight S&H using both ADC 10-bit modules

24 analog channels (64-pin devices) up to 32 analog channels (100/121/144-pin devices)

Flexible and independent ADC trigger sources

Up to three Analog Comparator modules

Programmable references with 32 voltage points for Comparators

Timers / Capture / Compare / Standard PWM

Nine 16-bit Timers/Counters.

16 Input Capture

16 Output Compare/ PWM

Unused Output compares can be used as standard times for a total of 25 timers

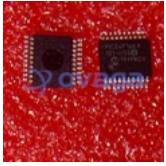
Hardware Real-Time Clock and Calendar

Peripheral Pin Select (PPS) to allow function remap

Direct Memory Access (DMA)

15-channel DMA with user-selectable priority arbitration

Related Products



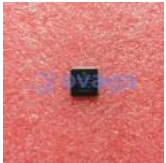
[PIC24F16KA101-I/SS](#)

Microchip Technology, Inc
SSOP-20



[PIC16F1938-I/SP](#)

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PDIP-28



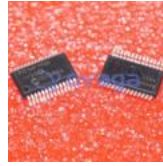
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