Ovaga

PIC24FJ128GA204-I/PT

PIC/DSPIC Microcontroller, General Purpose, PIC24 Family PIC24FJ GA Series Microcontrollers, PIC24

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

Images are for reference only

Please submit RFQ for PIC24FJ128GA204-I/PT or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

16-bit microcontroller featuring anintegrated crypto module and eXtreme Low Power. This device includes 128KB Flash, 8KB RAM and other advanced peripherals. The combination offeatures makes the part ideally suited for low power embedded securityapplications.

Features

Cryptographic Engine

AES Engine with 128,192 or 256-Bit Key

Supports ECB, CBC, OFB, CTR and CFB128 modes

DES/Triple DES (TDES) Engine: Supports 2-Key and 3-Key EDE or DED TDES

Supports up to Three Unique Keys for TDES

Programmatically Secure

True Random Number Generator

Pseudorandom Number Generator

Non-Readable, On-Chip, OTP Key Storages

Extreme Low-Power

Extreme Low-Power Current Consumption: WDT: 270 nA @ 3.3V typical, RTCC: 400 nA @ 32 kHz, 3.3V typical, Deep Sleep current, 40

nA, 3.3V typical

Multiple Power Management Options: VBAT, Deep Sleep, Sleep and Idle Mode, Doze Mode.

Alternate Clock modes allow On-the-Fly Switching to a Lower Clock Speed for Selective Power Reduction

CPU

Supply Voltage Range of 2.0V to 3.6V

Up to 16 MIPS Operation @ 32 MHz

17-Bit x 17-Bit Single-Cycle Hardware Fractional/Integer Multiplier

32-Bit by 16-Bit Hardware Divider

16 x 16-Bit Working Register Array

C Compiler Optimized Instruction Set Architecture (ISA)

Two Address Generation Units (AGUs) for Separate Read and Write Addressing of Data Memory

Analog Features

10/12-Bit, 12-Ch ADC: Conversion rate of 500 ksps (10-bit), 200 ksps (12-bit)

ADC Conversion available during Sleep and Idle

Three Rail-to-Rail, Enhanced Analog Comparators with Programmable Input/Output Configuration

Three On-Chip Programmable Voltage References

Charge Time Measurement Unit (CTMU): Used for capacitive touch sensing or precise time measurement

Additional Peripherals

Peripheral Pin Select (PPS); Allows Independent I/O Mapping of many Peripherals

Five 16-Bit Timers/Counters with Pre-scaler

Six-Channel DMA supports All Peripheral modules

Six Input Capture modules, each with a Dedicated 16-Bit Timer

Six Output Compare/PWM modules, each with a Dedicated 16-Bit Timer
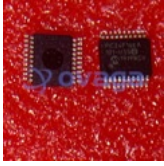
Hardware Real-Time Clock/Calendar (RTCC)

Three SPI modules including I2S mode

Two I2C™ modules Support Multi-Master/Slave mode and 7-Bit/10-Bit Addressing

Programmable 32-Bit Cyclic Redundancy Check (CRC) Generator

Four UART modules, supporting RS-485, RS-232, LIN/J2602, and On-chip hardware encoder/decoder for IrDA®
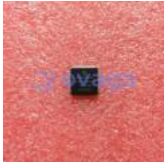
Related Products

PIC24F16KA101-I/SS

Microchip Technology, Inc

SSOP-20
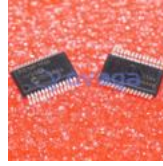

PIC16F1936-I/SS

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SSOP-28

PIC16F1938-I/SP

Microchip Technology, Inc

PDIP-28

PIC18F23K22-I/SP

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SPDIP-28

PIC18F6520-I/PT

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TQFP-64

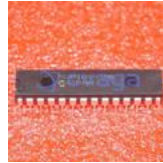

PIC18F2620-I/SP

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SPDIP-28

PIC18F2620-I/SO

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PIC18F97J60T-I/PT

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TQFP-100