Digital Signal Controller, dsPIC33F Series, 40 MHz, 256 KB, 85 I/O's, CAN, I2C, SPI, UART, 2.75 V

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 DSPIC33FJ256GP710A-I/PF or Email to us: sales@ovaga.com We will contact you in 12 hours.　　　RFQ

General Description

•dsPIC33Fs are designed to execute digital filter algorithmsand high-speed precision digital control loops, ideal for applications thatneed to perform under pressure　　•GeneralPurpose Digital Signal Controllers (DSCs) with advanced analog and seamlessmigration options to PIC24F, PIC24H MCUs and dsPIC30F DSCs

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-performance dsPIC33F core

Code-efficient (C and Assembly) architecture

Two 40-bit wide accumulators

Single-cycle (MAC/MPY) with dual data fetch

Single-cycle mixed-sign MUL plus hardware divide

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

2.1 mA/MHz dynamic current (typical)

50 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

Up to two Enhanced CAN (ECAN) modules (1 Mbaud) with CAN 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 non-standard 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 pins

Debugger Development Support

In-circuit and in-application programming

Two program and two complex data breakpoints

IEEE 1149.2-compatible (JTAG) boundary scan

Trace and run-time watch

Related Products

DSPIC30F6014A-20E/PF

Microchip Technology, Inc

TQFP-80

DSPIC33EP512MU814-I/PH

Microchip Technology, Inc

TQFP-144

DSPIC30F5011-30I/PT

Microchip Technology, Inc

TQFP-64

DSPIC33EP512GM710-I/PF

Microchip Technology, Inc

TQFP-100

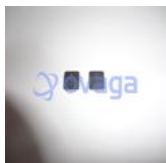**DSPIC33FJ256MC710-I/PF**

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TQFP-100

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TQFP-100

DSPIC30F5015-30I/PT

Microchip Technology, Inc

TQFP-64

DSPIC30F4011-30I/PT

Microchip Technology, Inc

TQFP-44