MCU 32-bit ARM7TDMI RISC 256KB Flash 1.8V/3.3V 128-Pin LQFP Tray

Manufacturers	Microchip Technology, Inc
Package/Case	LQFP-128
Product Type	Embedded Processors & Controllers
RoHS	Green
Lifecycle	
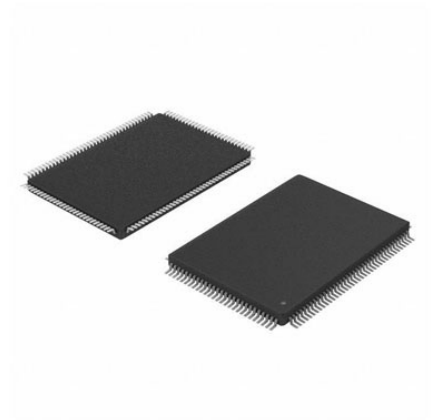
Images are for reference only

Please submit RFQ for AT91SAM7SE256B-AU or Email to us: sales@ovaga.com We will contact you in 12 hours.　　RFQ

General Description

Microchip'sARM®-based SAM7SE256 is a member of the SAM7SE series of flash microcontrollers based on the 32-bit ARM7TDMI RISC processor.

It operates at a maximum speed of 55MHz and features 256KB of flash memory and 32KB of SRAM. The peripheral set includes an external bus interface (EBI) supporting static memory, ECC-enabled NAND, CompactFlash and SDRAM, UART, two USARTs, TWI (I2C), SPI, SSC, four 16-bit PWM controllers, three 16-bit timers, an RTT and one 8x10-bit ADC.

It achieves single-cycle instruction access from embedded flash at 27 MIPS. The multi-layer bus matrix, multiple SRAM banks, PDC, and DMA support parallel tasks and maximize data throughput.

The SAM7SE256 operates from 1.65V to 3.6V and is available in 144-pin LFBGA and LQFP 128-pin package.

Features

Microcontroller Features

Core

ARM7TDMI® ARM® Thumb® Processor 32-bit RISC Architecture

High-density 16-bit Instruction Set

EmbeddedICE™ In-circuit Emulation, Debug Communication Channel Support

Memories

256 Kbytes embedded Flash

32 Kbytes embedded SRAM, Single-cycle Access at Maximum Speed

Memory Controller (MC), External Bus Interface

Memory Protection Unit

System

Based on Power-on Reset Cells and Low-power Factory-calibrated Brownout Detector

Low-power RC Oscillator, 3 to 20 MHz On-chip Oscillator and One PLL

Power Management Controller (PMC)

Advanced Interrupt Controller (AIC)

Two-wire UART and Support for Debug Communication Channel interrupt, Programmable ICE Access Prevention

20-bit Programmable Counter plus 12-bit Interval Counter

Windowed Watchdog (WDT)

Real-time Timer (RTT)

Three Parallel Input/Output Controllers (PIO)

Eleven Peripheral DMA Controller (PDC) Channels

Four High-current Drive I/O lines, Up to 16 mA Each

Package

128-lead LQFP Green Package

144-ball LFBGA RoHS-compliant Package

Peripheral Features

One Synchronous Serial Controller (SSC)

Two Universal Synchronous/Asynchronous Receiver Transmitters (USART)

One Master/Slave Serial Peripheral Interfaces (SPI)

One USB 2.0 Full Speed (12 Mbits per second) Device Port

One Three-channel 16-bit Timer/Counter (TC)

One Four-channel 16-bit PWM Controller (PWMC)

One Two-wire Interface (TWI)

Analog Features

One 8-channel 10-bit Analog-to-Digital Converter, Four Channels Multiplexed with Digital I/Os

Fully Static Operation
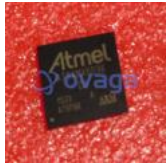
Up to 55 MHz at 1.8V and 85°C Worst Case Conditions

Up to 48 MHz at 1.65V and 85°C Worst Case Conditions

Debugger Development Support

SAM-BA - Interface with SAM-BA Graphic User Interface

IEEE® 1149.1 JTAG Boundary Scan on All Digital Pins

Related Products

ATSAMA5D36A-CU

Microchip Technology, Inc

LFBGA-324

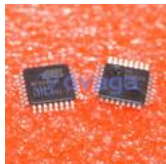
ATMEGA32M1-AU

Microchip Technology, Inc

TQFP-32

ATXMEGA128D3-AU

Microchip Technology, Inc

TQFP-64

ATTINY2313V-10SU

Microchip Technology, Inc

SOIC-20

ATMEGA64M1-15AZ

Microchip Technology, Inc

TQFP-32

ATMEGA16L-8PU

Microchip Technology, Inc

PDIP-40

ATTINY48-MU

Microchip Technology, Inc

VQFN-32

ATTINY4-TSHR

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