8 Bit MCU, Low Power High Performance, AVR ATmega Family ATmega32 Series
Microcontrollers, 16 MHz

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 ATMEGA32A-AUR or Email to us: sales@ovaga.com We will contact you in 12 hours.   RFQ

General Description

The low power, high performance Microchip 8-bit AVR RISC-based microcontroller featuring 32KB self-programming flash program memory, 2KB SRAM, 1KB EEPROM, 8 channel 10-bit A/D converter and JTAG interface for on-chip-debug. The device acheives 16 MIPS throughput at 16 MHz at 2.7-5.5V operation.

By executing powerful instructions in a single clock cycle, the device achieves throughputs approaching 1 MIPS per MHz, allowing you to optimize power consumption versus processing speed.

Features

Advanced RISC Architecture

131 Powerful Instructions - Most Single-clock Cycle Execution

32 × 8 General Purpose Working Registers

Fully Static Operation

Up to 16MIPS Throughput at 16MHz

On-chip 2-cycle Multiplier

High Endurance Non-volatile Memory segments

32Kbytes of In-System Self-programmable Flash program memory

1024Bytes EEPROM

2Kbytes Internal SRAM

Write/Erase cycles: 10,000 Flash/100,000 EEPROM

Data retention: 20 years at 85°C/100 years at 25°C

Optional Boot Code Section with Independent Lock Bits

In-System Programming by On-chip Boot Program

True Read-While-Write Operation

Programming Lock for Software Security

JTAG (IEEE std. 1149.1 Compliant) Interface

Boundary-scan Capabilities According to the JTAG Standard

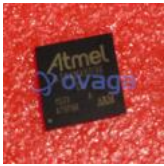Extensive On-chip Debug SupportProgramming of Flash, EEPROM, Fuses and Lock Bits through the JTAG Interface

QTouch library support

Capacitive touch buttons, sliders and wheels

QTouch and QMatrix acquisition

Up to 64 sense channels

Related Products

ATSAMA5D36A-CU

Microchip Technology, Inc

LFBGA-324
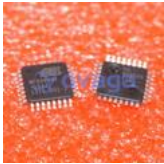
ATMEGA32M1-AU

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

Microchip Technology, Inc

SOT-23-6