

Product introduction

The BJ8M608B is a single chip 8-bit MCU based on RISC architecture with built-in 2K×16-bit MTP program memory. It is manufactured using an advanced CMOS process with low power consumption characteristics and low operating voltage capability. The chip integrates three timer modules, which can provide timing, counting and PWM functions. Internal watchdog, low voltage reset, low voltage detection functions ensure the reliable operation of the system. In addition, the MCU includes rich IO resources and can be widely used in various products.

Application field

Consumer electronics, small appliances, etc.

CPU characteristics

RISC architecture, 1T kernel.
5 layers of hardware stack.

Store

Program memory: 2K x 16bits.
Data RAM: 96 x 8bits.
EEPROM: 128byte.

Instruction set

68 instructions.

Interrupt

Unique interrupt entry address (08h).
Supports IO flip interrupts (14 IO supports).
Supports internal interrupts: T0, T1, T2, LVD.

I/O port

Bi-direction IO port: 14.
Pull-up resistance port: 14.
Pull-down resistance port: 14.
Open drain port: 14.
Wake up port: 14.
IO flip interrupts port: 14.
I/O port source current/sink current: 20mA.
7 high drivers, with 4 level 20mA,40mA,60mA,80mA.

Timer/counter

Timer/counter 0
8-bit basic timer/counter.

Supports the pre-division function.

Timer/counter 1

Automatic loading of 16-bit timer/counter.

4 PWM output.

Supports the pre-division function.

Timer/counter 2

Automatic loading of 16-bit timer/counter.

3 PWM output.

Supports the pre-division function.

Watchdog timer

Supports the pre-division function.

Can configure overflow reset or wake up.

Clock system

Internal RC oscillator (master clock)

Frequency: 1MHz, 2MHz, 8MHz, 16MHz, error: $\pm 1\%$.

Internal RC oscillator (WDT clock)

Frequency: 128KHz, error: $\pm 3\%$.

Can work with dual clocks

Oscillator can be divided frequency: 1, 2, 4, 8.

Working mode

Common mode: Both high-speed and low-speed clocks work properly.

Low-speed mode: Only the low-speed clock works properly.

STOP mode: All clocks stop working.

IDLE mode: The CPU stops working and peripherals can work.

Low voltage reset (LVR)

Low voltage reset options: 1.9V, 2.2V, 2.8V, 3.4V.

Low Voltage Detection (LVD)

Low voltage detection options: 2.0V, 2.4V, 3.0V, 3.6V.

Can be configured to generate interrupts.

Low power mode

STOP mode: 0.7uA @3.0V.

STOP mode: 0.9uA @5.0V.

Operating temperature range

-40°C ~ +85°C.

Voltage operating range

1.8V~5.5V.

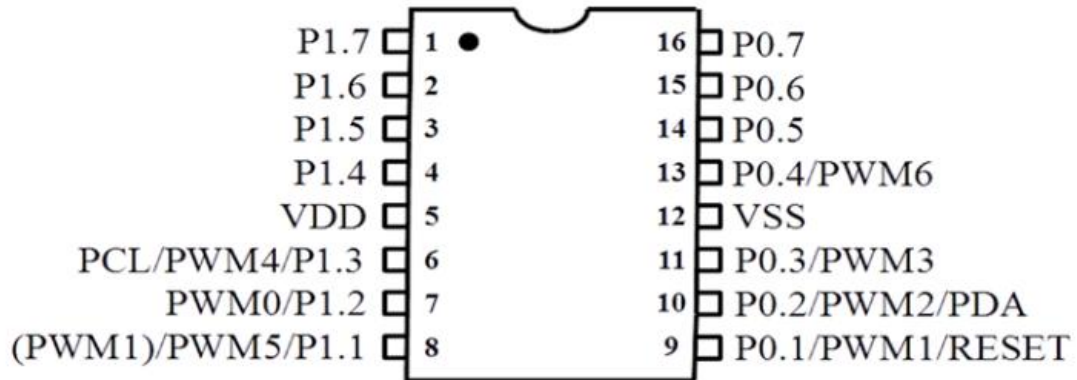
Anti-interference capability

ESD: Better than $\pm 4000\text{V}$.

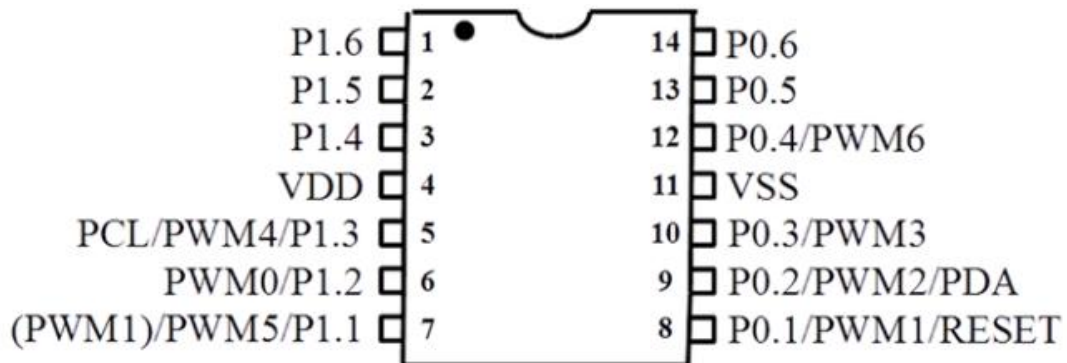
EFT: better than $\pm 4000\text{V}$.

Pin assignment diagram

SOP16



SOP14



SOP8

