

The global interrupt enable bit is set, the interrupt will be recorded in order to perform in accordance with the priority.

The second type is interrupted when an interrupt condition persists, the response has been interrupted. Such interruptions do not need to interrupt flag. If the interrupt condition disappears before the interrupt is enabled, the interrupt will not get a response.

when LGT8XM Kernel from the interrupt service routine exits, execution flow returns to the main program. After performing one or several instructions in the main program, in order to respond to other requests pending interrupts.

Note that the system status register (SREG) It does not automatically save after entering the interrupt service, will not automatically resume after returning from the interrupt service. It must be responsible for handling the software.

When CLI After the instruction to disable interrupts, the interrupt will be banned immediately. in CLI So that occur after the instruction interrupts do not get a response. And even CLI Simultaneous interrupt instruction is executed, it will not be acknowledged. The following example shows how to use CLI Avoid interrupting upset EEPROM Write timing:

Interrupt response time

LGT8XM Kernel optimized for interrupt response so that any interruption in 4 Obtained in response to certain system clock cycles. 4 After the system clock cycles, enter the interrupt service routine execution cycle. At this 4 Internal clock, before the interruption PC Value is pushed onto the stack, the system performs the process flow goes to the interrupt service routine corresponding to the interrupt vector. If an interrupt occurs during a multi-cycle instruction execution, the kernel will ensure the proper execution of the current instruction is completed. If an interrupt occurs in the system is in sleep state (SLEEP) , Interrupt response requires additional 4 Clock cycles. This increases the clock cycle synchronization cycle for wake-up from sleep mode operation selected. Detailed description of sleep mode, please refer to the relevant sections of power management.

Need to return from the interrupt service routine 2 Clock cycles. At this 2 Clock cycles, PC Restored from the stack, the stack pointer plus 2 And automatically enable global interrupt control bit.