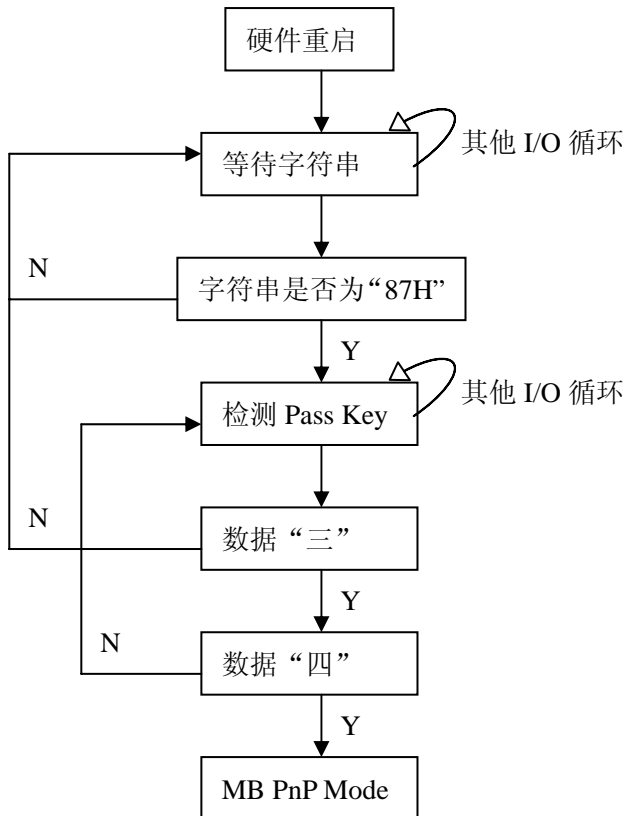


看门狗计时器程序说明

本说明针对采用 ITE IT8712F (super IO) 芯片的产品。要使用看门狗功能需先将主板上的 WATCHDOG 跳线跳成 RESET 模式

看门狗计时器编程说明：

一 硬件重启或 PS-ON 复位后，除了 KBC(KB/MS Controller and Configuration Registers)外，所有的逻辑设备将被禁用，ITE 8712 进入普通模式。KBC 通过判定 ITE 8712 的 121pin(DTR1#)信号波形下沿的状态来决定是否启用看门狗。



二 看门狗计数器编程步骤

1 进入 MB PnP 模式

按顺序写 87h,01h,55h,55h 四个值到配置端口 2Eh,开启看门狗。

2 选择逻辑设备

3 配置看门狗计数器控制寄存器：

LDN	Index	R/W	Reset	Configuration Register or Action
All	02H	W	N/A	Configure Control
	07H	71H	R/W	00H WatchDog Timer Control Register
	07H	72H	R/W	00H WatchDog Timer Configuration Register
	07H	73H	R/W	00H WatchDog Timer Time-out Value Register

Configure Control (Index=02h)

Bit Description

7-2 Reserved

- 1 Returns to the Wait for Key state. This bit is used when the configuration sequence is completed
- 0 Resets all logical devices and restores configuration registers to their power-on states.

WatchDog Timer Control Register (Index=71h, Default=00h)

Bit Description

- 7 WDT is reset upon a CIR interrupt
- 6 WDT is reset upon a KBC (mouse) interrupt
- 5 WDT is reset upon a KBC (keyboard) interrupt
- 4 WDT is reset upon a read or a write to the Game Port base address
- 3-2 Reserved
- 1 Force Time-out. This bit is self-clearing 0 WDT Status
 - 1: WDT value reaches 0.
 - 0: WDT value is not 0

WatchDog Timer Configuration Register (Index=72h, Default=00h)

Bit Description

- 7 WDT Time-out value select
 - 1: Second
 - 0: Minute
- 6 WDT output through KRST (pulse) enable
- 5-4 Reserved
- 3-0 Select the interrupt level Note for WDT

WatchDog Timer Time-out Value Register (Index=73h, Default=00h)

Bit Description

- 7-0 WDT Time-out value 7-0

4 退出 MB PnP 模式

配置控制寄存器 02h 值的第 1 位为 1 (7.6.5.4.3.2.1.0 一共八位)

三 程序例子

在 DOS 模式下, 运行 DEBUG 命令:

- O 2E 87
- O 2E 01
- O 2E 55
- O 2E 55 : 进入 MB PnP 模式
- O 2E 07
- O 2F 07 : 设定 07 为逻辑设备
- O 2E 73
- O 2F 0A : 设定计数器的值
- O 2E 72
- O 2F C0 : 设定计时单位为秒(40 为分)
- O 2E 02
- O 2F 02 : 退出 MB PnP 模式