Sy6

IOY0 EQU  06C0H        ;IOY0起始地址

A8254    EQU  IOY0+00H\*2

B8254    EQU  IOY0+01H\*2

C8254    EQU  IOY0+02H\*2

CON8254  EQU  IOY0+03H\*2

SSTACK SEGMENT STACK

DW 32 DUP(?)

SSTACK ENDS

CODE SEGMENT

ASSUME CS:CODE

START: MOV DX, CON8254 ;8254

MOV AL, 16H ;计数器0，方式3

OUT DX, AL

MOV DX, A8254

MOV AL, 32H

OUT DX, AL

AA1: JMP AA1

CODE ENDS

END  START

Sy7

IOY0         EQU   0640H          ;片选IOY0对应的端口始地址，改IOY1 0600变0640

MY8255\_A     EQU   IOY0+00H\*2     ;8255的A口地址

MY8255\_B     EQU   IOY0+01H\*2     ;8255的B口地址

MY8255\_C     EQU   IOY0+02H\*2     ;8255的C口地址

MY8255\_MODE  EQU   IOY0+03H\*2     ;8255的控制寄存器地址

SSTACK SEGMENT STACK

DW 32 DUP(?)

SSTACK ENDS

CODE SEGMENT

ASSUME CS:CODE

START: MOV DX, MY8255\_MODE

MOV AL, 90H ;原控制字10000010B=82H，10010000B=90H，B4H

OUT DX, AL

AA1: MOV DX, MY8255\_A ;B口为输入，改A

IN  AL, DX

CALL DELAY

MOV DX, MY8255\_B ;A口为输出，改B

OUT DX, AL

cmp AL,10100000B

JZ end0

JMP AA1

end0:MOV AX,4C00H

int 21H

DELAY: PUSH CX

MOV CX, 0F00H

AA2: PUSH AX

POP  AX

LOOP AA2

POP  CX

RET

CODE ENDS

END  START

Sy8

IOY0         EQU  0600H        ;IOY0起始地址

IOY1         EQU  0640H        ;IOY1起始地址

M8251\_DATA EQU IOY0+00H\*2

M8251\_CON EQU IOY0+01H\*2

M8254\_2 EQU IOY1+02H\*2

M8254\_CON EQU IOY1+03H\*2

SSTACK SEGMENT STACK

DW 64 DUP(?)

SSTACK ENDS

CODE SEGMENT

ASSUME CS:CODE

START: MOV AX, 0000H

MOV DS, AX

;初始化8254，得到收发时钟

MOV AL, 0B6H  ;8254控制字 1011 0110 先读低8位方式3方波发生器

MOV DX, M8254\_CON

OUT DX, AL

MOV AL, 0CH ;赋初值，决定方波频率 12

MOV DX, M8254\_2

OUT DX, AL

MOV AL, 00H ;方波为0

OUT DX, AL

;复位8251

CALL INIT

CALL DALLY

;8251方式字

MOV AL,7EH    ;0111 1110 异步，1位停止位,偶校验，8位数据，波特率因子16

MOV DX, M8251\_CON

OUT DX, AL

CALL DALLY

;8251控制字

MOV AL, 34H  ;0011 0100 RTS有效，错误复位，接受运允许

OUT DX, AL

CALL DALLY

MOV DI, 3000H

MOV SI, 4000H

MOV CX, 000AH ;重复10次，10个数据

A1: ;MOV AL, [SI]

MOV AH,01H

INT 21H

PUSH AX

MOV AL, 37H ;0011 0111 RTS有效，错误复位，接受运允许,DTR有效，发送允许

MOV DX, M8251\_CON

OUT DX, AL

POP AX

MOV DX, M8251\_DATA

OUT DX, AL ;发送数据

MOV DX, M8251\_CON

A2: IN AL, DX ;判断发送缓冲是否为空

AND AL, 01H   ;取最后1位

JZ A2  ;等缓冲区有数据继续

CALL DALLY

A3: IN AL, DX ;判断是否接收到数据

AND AL, 02H  ;取倒数第二位，

JZ A3

MOV DX, M8251\_DATA

IN AL, DX ;读取接收到的数据

;MOV [DI], AL ;写入di

MOV DL,AL

ADD DL,01H

MOV AH,02H

INT 21H

INC DI

INC SI

LOOP A1

MOV AX,4C00H

INT 21H ;程序终止

INIT: MOV AL, 00H ;复位8251子程序

MOV DX, M8251\_CON

OUT DX, AL

CALL DALLY

OUT DX, AL

CALL DALLY

OUT DX, AL

CALL DALLY

MOV AL, 40H

OUT DX, AL

RET

DALLY: PUSH CX

MOV CX,3000H

A5: PUSH AX

POP AX

LOOP A5

POP CX

RET

CODE ENDS

END START

Sy9

SSTACK SEGMENT STACK

DW 32 DUP(?)

SSTACK ENDS

CODE SEGMENT

ASSUME CS:CODE

START: PUSH DS

MOV AX, 0000H

MOV DS, AX

MOV AX, OFFSET SIR0

MOV SI, 00C0H

;MOV SI, 00C0H ;填IR0的偏移矢量 11000000=从片的IOY0

MOV [SI], AX

MOV AX, CS

MOV SI, 00C2H

;MOV SI, 00C2H

MOV [SI], AX

MOV AX, OFFSET SIR1

MOV SI, 00C4H

;MOV SI, 00C4H ;填IR1的偏移矢量

MOV [SI], AX

MOV AX, CS

MOV SI, 00C6H

;MOV SI, 00C6H

MOV [SI], AX

MOV AX, OFFSET SIR2

MOV SI, 0038H ;填MIR6的偏移矢量

MOV [SI], AX

MOV AX, CS

MOV SI, 003AH

MOV [SI], AX

POP DS

CLI

;初始化主片8259

MOV AL, 11H

OUT 20H, AL ;ICW1 00010001,D5=1表示初始化命令字，D0=1表示设置icw4

MOV AL, 08H ;00001000H =00100110

OUT 21H, AL ;ICW2 00001000，中断类型码，中断向量高5位+3位引脚号，再左移2位的，IR0，得到偏移地址，段地址为2

MOV AL, 80H

OUT 21H, AL ;ICW3，主片初始化命令字，10000000，D7表示主片接在IR0号引脚

MOV AL, 01H

OUT 21H, AL ;ICW4，00000001，控字初始化命令字，D0=1表示8086系统，其他为否

;初始化从片8259

MOV AL, 11H

MOV DX, 0600H

OUT DX, AL ;ICW1 0600H偶控制端口

MOV AL, 30H

MOV DX, 0602H ;IOY0奇端口

OUT DX, AL ;ICW2 00110000，中断类型码，

MOV AL, 07H

OUT DX, AL ;ICW3 000001111，从片初始化命令字 D2~D0表示从片接在IR7号引脚

MOV AL, 01H

OUT DX, AL ;ICW4，00000001，控字初始化命令字，D0=1表示8086系统，其他为否

MOV AL, 0FCH

OUT DX, AL

;MOV AL, 6FH ;从8259 OCW1 = MOV AL, 1100 1111

MOV AL, 2FH

OUT 21H, AL ;主8259 OCW1 01101111

STI

AA1: NOP

JMP AA1

SIR0: STI

CALL DELAY

MOV AX, 0153H

INT 10H ;显示字符S

MOV AX, 0130H

INT 10H ;显示字符0

MOV AX, 0120H

INT 10H

MOV AL, 20H

OUT 20H, AL

MOV DX, 0600H

OUT DX, AL

IRET

SIR1: STI

CALL DELAY

MOV AX, 0153H

INT 10H ;显示字符S

MOV AX, 0131H

INT 10H ;显示字符1

MOV AX, 0120H

INT 10H

MOV AL, 20H

OUT 20H, AL

MOV DX, 0600H

OUT DX, AL

IRET

SIR2: STI

CALL DELAY

MOV AX, 0153H

INT 10H ;显示字符S

MOV AX, 0132H

INT 10H ;显示字符2

MOV AX, 0121H

INT 10H

MOV AL, 20H

OUT 20H, AL

MOV DX, 0600H

OUT DX, AL

IRET

DELAY: PUSH CX

MOV CX, 0F00H

AA0: PUSH AX

POP AX

LOOP AA0

POP CX

RET

CODE ENDS

END START

Sy10

IOY0 EQU 0600H

DA1 EQU IOY0+00H\*2

CODE SEGMENT

ASSUME CS:CODE

START: MOV AX, 00H ; 产生波

MOV DX, DA1

AA1: MOV AL, 00H

OUT DX, AL ;产生低电平

CALL DELAY ;

CALL T1 ;产生上升信号

MOV AL, 0FFH ;保持高电平

OUT DX, AL

CALL DELAY

CALL T2 ;产生下降信号

JMP AA1

DELAY: PUSH CX

MOV CX,008FH

AA2: PUSH AX

POP AX

LOOP AA2

POP CX

RET

T1: PUSH AX

PUSH CX

MOV AL,00H

MOV CX,07FH

AA3:

OUT DX, AL

INC AL ;数字上升

INC AL

LOOP AA3

POP AX

POP CX

RET

T2: PUSH AX

PUSH CX

MOV AL,0FFH

MOV CX,07FH

AA4:

OUT DX, AL

DEC AL ;数字下降

DEC AL

LOOP AA4

POP AX

POP CX

RET

CODE ENDS

END START

Sy11

IOY0 EQU 0600H ;片选IOY0对应的端口始地址

MY8255\_A EQU IOY0+00H\*2 ;8255的A口地址

MY8255\_B EQU IOY0+01H\*2 ;8255的B口地址

MY8255\_C EQU IOY0+02H\*2 ;8255的C口地址

MY8255\_CON EQU IOY0+03H\*2 ;8255的控制寄存器地址

SSTACK SEGMENT STACK

DW 16 DUP(?)

SSTACK ENDS

DATA SEGMENT

DTABLE DB 6FH,5BH

DATA ENDS

CODE SEGMENT

ASSUME CS:CODE,DS:DATA

START: MOV AX,DATA

MOV DS,AX

MOV SI,3000H

MOV AL,6FH

MOV [SI],AL ;清显示缓冲 用于存储数据

MOV AL,5BH

MOV [SI+1],AL

MOV DX,MY8255\_CON ;写8255控制字

MOV AL,81H

OUT DX,AL

BEGIN: CALL DIS ;调用显示子程序

CALL CLEAR ;清屏

JNZ INK1

JMP BEGIN

INK1: CALL DIS

CALL DALLY

CALL DALLY

CALL CLEAR

JMP BEGIN

CLEAR: MOV DX,MY8255\_B ;清屏子程序

MOV AL,00H

OUT DX,AL

RET

DIS: PUSH AX ;显示子程序

MOV SI,3000H

MOV DL,0DFH ;11 011111 MOV AL,DL

MOV CX,02H

AGAIN: PUSH DX

MOV DX,MY8255\_A

OUT DX,AL

MOV AL,[SI]

MOV DX,MY8255\_B

OUT DX,AL

CALL DALLY

INC SI

INC BX

POP DX

MOV AL,DL

ROR AL,1

MOV DL,AL

LOOP AGAIN

POP AX

RET

DALLY: PUSH CX ;延时子程序

MOV CX,0002H

T1: MOV AX,009FH

T2: DEC AX

JNZ T2

LOOP T1

POP CX

RET

GOBACK: RET

CODE ENDS

END START