日立 SX19V007 液晶屏驱动程序

液晶控制器：CX135，显示 27 色，0755-81261729 QQ:191981784

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FX      EQU     7FH             ;text x dot size FX+1
FY      EQU     7EH             ;text y dot size FY+1
CR      EQU     7DH             ;character return APL-1
TC_P    EQU     7CH             ;fram purse     12MHz>=[(TC_P)*9+1]*L_F*70Hz
L_F     EQU     7BH             ;y duty L_F+1
APL     EQU     7AH             ;number of text per line
APH         EQU         79H
START:
        MOV     FX,#0fH             ;can change         0f
        MOV     FY,#00H             ;graphic 00                 00

        MOV     CR,#79          ;640/8 - 1
        MOV     TC_P,#44        ; >= 40 + 4
        MOV     L_F,#59             ; 480/8 - 1

        MOV     APL,#080H
        MOV     APH,#02H

        CALL    RESET_P11
        CALL    DELAY2
        CALL    SET_P11
        CALL    DELAY2
        NOP
;*************************************************************************
SYSTEM_SET:
        MOV     A,#40H
        CALL    COM_W
        MOV     A,#30H
        CALL    DATA_W
        MOV     A,FX                ;FX
        CALL    DATA_W
        MOV     A,FY                ;FY
        CALL    DATA_W
        MOV     A,CR                ;CR
        CALL    DATA_W
        MOV     A,TC_P              ;TC/R
        CALL    DATA_W
        MOV     A,L_F               ;L/F
        CALL    DATA_W
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        MOV     A,APL                   ;APL
        CALL    DATA_W
        MOV     A,APH                   ;APH
        CALL    DATA_W
SYSTEM_SET2:            ; COMMAND 80H
        MOV     A,#80H
        CALL    COM_W
        MOV     A,#0BH          ; CSTN 27 color mode
        CALL    DATA_W
;*******************************************************************************
SCROLL:
        MOV     A,#44H
        CALL    COM_W
        MOV     A,#00H          ;SAD1L
        CALL    DATA_W
        MOV     A,#00H          ;SAD1H
        CALL    DATA_W
        MOV     A,#0EFH         ;
        CALL    DATA_W
;*******************************************************************************
CSR_FORM:
        MOV     A,#5DH
        CALL    COM_W
        MOV     A,#00H          ;can change, must <= fx
        CALL    DATA_W
        MOV     A,#80H          ;graphic 80H
        CALL    DATA_W
;*******************************************************************************
HDOT_SCR:
        MOV     A,#5AH
        CALL    COM_W
        MOV     A,#00H                  ;NO SCROLL
        CALL    DATA_W
;*******************************************************************************
OVERLAY:
        MOV     A,#5BH
        CALL    COM_W
        MOV     A,#0CH                  ;layer1 only
        CALL    DATA_W
;*******************************************************************************
CSR_DIR:
        MOV     A,#4CH
        CALL    COM_W
        CALL    CL1
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;*************************************************************************
DISP_ON:
          MOV       A,#59H
          CALL      COM_W
          MOV       A,#55H
          CALL      DATA_W
;*************************************************************************
;          SHOW BEGIN
;*************************************************************************
waitl:    CALL    LRA
            CALL  DELAY
            CALL    LGA
            CALL  DELAY
            CALL    LBA
            CALL  DELAY
            CALL    LBB
            CALL  DELAY
            CALL    LBW
            CALL  DELAY
          JMP       waitl
;*************************************************************************
;          SHOW WINSTAR LOGO
;*************************************************************************
LRA:
                    CALL    CL1
                    CALL     POS1
                    MOV       A,#42H
                    CALL     COM_W
                    MOV     R7,#160
LR:                 MOV     R6,#160
LR1:                MOV     R5,#12
LR2:                MOV          A,#30H
                    CALL     DATA_W
                    DJNZ    R5,LR2
                    DJNZ    R6,LR1
                    DJNZ    R7,LR
                     RET
LGA:                 CALL   CL1
                    CALL     POS1
                    MOV       A,#42H
                    CALL     COM_W
                    MOV     R7,#160
LG:                 MOV     R6,#160
LG1:                 MOV    R5,#12
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LG2:    MOV     A,#12
        CALL    DATA_W
        DJNZ    R5,LG2
        DJNZ    R6,LG1
        DJNZ    R7,LG
        RET
LBA:    CALL    CL1
        CALL    POS1
        MOV     A,#42H
        CALL    COM_W
        MOV     R7,#160
LB:     MOV     R6,#160
LB1:    MOV     R5,#12
LB2:    MOV     A,#03H
        CALL    DATA_W
        DJNZ    R5,LB2
        DJNZ    R6,LB1
        DJNZ    R7,LB
        RET
LBB:    CALL    CL1
        CALL    POS1
        MOV     A,#42H
        CALL    COM_W
        MOV     R7,#160
LBC:    MOV     R6,#160
LBC1:   MOV     R5,#12
LBC2:   MOV     A,#0FFH
        CALL    DATA_W
        DJNZ    R5,LBC2
        DJNZ    R6,LBC1
        DJNZ    R7,LBC
        RET
LBW:    CALL    CL1
        CALL    POS1
        MOV     A,#42H
        CALL    COM_W
        MOV     R7,#160
LBZ:    MOV     R6,#160
LBZ1:   MOV     R5,#12
LBZ2:   MOV     A,#00H
        CALL    DATA_W
        DJNZ    R5,LBZ2
        DJNZ    R6,LBZ1
        DJNZ    R7,LBZ
```

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                    RET

;*************************************************************************
COM_W:
    MOV     DPTR,   #0100H
    MOVX    @DPTR, A
    NOP
    RET
;*************************************************************************
DATA_W:
        MOV     DPTR,   #0000H
    MOVX    @DPTR, A
    NOP
    RET
DATA_R:
    MOV     DPTR, #0100H
    MOVX    A,   @DPTR
    NOP
    RET

FLAG_R:
    MOV     DPTR, #0000H
    MOVX    A,   @DPTR
    NOP
    RET

SET_P11:
    MOV     90H, #0FFH
    RET

RESET_P11:
    MOV     90H, #0FDH
    RET

;*************************************************************************
CL1:
        CALL    POS1
        MOV     A,#42H    ;写指令代码
        CALL    COM_W     ;写指令
        MOV     R0,#240
L1:     MOV     R1,#160
l2:     MOV     R2,#08
L3:     MOV     A,#00H
        CALL    DATA_W
```

```
            DJNZ        R2,L3
            DJNZ        R1,L2
             DJNZ       R0,L1
            RET

;*************************************************************************
;POSITION 1
POS1:
            MOV         A,#46H
            CALL        COM_W
            MOV         A,#00H
            CALL        DATA_W
            MOV         A,#00H
            CALL        DATA_W
      MOV         A,#00H
            CALL        DATA_W
            RET


;*************************************************************************
DELAY:
            MOV         R7,#40
K:          MOV         R6,#100
K0:         MOV         R5,#250
K1:         DJNZ        R5,K1
            DJNZ        R6,K0
            DJNZ        R7,K
            RET

DELAY2:

             MOV        R5,#250
K12:         DJNZ       R5,K12
            RET
;*************************************************************************
            END
```