

64128k_l_m_n series sample program

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;ST7565P*1
CS1 EQU P1.0
AO EQU P1.2 ;RST=/RES
RES EQU P1.1 ;RS=AO
W_R EQU P1.3
R_D EQU P1.4
    ORG 0000H
    JMP BEGIN
    ORG 0003H
    JMP INTOO
    ORG 0013H
    JMP INTII
BEGIN: SETB ITO
        SETB IT1
        SETB EA
        CLR EX0
        CLR EX1
        MOV B,#11011001B

        LCALL INTI
        lcall delay4

        ;lcall wcom2

START: MOV A,#0AFH ;DISPLAY ON
        LCALL WCOM
        MOV A,#10100101B ;DISPLAY ALL POINTS ON(TEST1)
        LCALL WCOM
        MOV 40H,#15
        LCALL DELAY2
        ;LCALL DELAY4
; WAIT: JMP WAIT
        MOV A,#10100100B ;return normal
        LCALL WCOM
        ;LCALL DELAY2

        ;MOV A,#040H ;INITIAL DISPLAY LINE
        ;LCALL WCOM
        LCALL TEST2 ;TEST2(WRITE SQUARE)
        ;MOV A,#0AFH ;DISPLAY ON
        ;LCALL WCOM
        MOV 40H,#15
        LCALL DELAY2
        ;LCALL DELAY4

        ;MOV A,#040H ;INITIAL DISPLAY LINE
        ;LCALL WCOM
        MOV R3,#00H ;TSET3(WRITE COLUMN)
        LCALL TEST
        MOV 40H,#15
        lcall delay2
        ;LCALL DELAY4

        MOV R3,#08H ;TEST4(WRITE CHECKER)
        LCALL TEST
        MOV 40H,#15
        LCALL DELAY2
        ;LCALL DELAY4

        LCALL TEST5 ;TEST5(WRITE BIG CHAR)
        ;MOV A,#0AFH ;DISPLAY ON
        ;LCALL WCOM
        MOV 40H,#30
        LCALL DELAY2

        MOV A,#10101110B ;DISPLAY OFF(TEST6)
        LCALL WCOM
        MOV 40H,#15
        LCALL DELAY2
        ;LCALL DELAY4
        ;WAIT:JMP WAIT
        LJMP START

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INTI:

64128k_l_m_n series sample program

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LCALL DELAY
LCALL DELAY
CLR   RES           ;RST
NOP
lcall delay
;lcall delay

SETB  RES
NOP
lcall delay
;MOV  A,#0E2H      ;SOFTWAVE RST
;LCALL WCOM
MOV   A,#0A2H      ;MOV   A,#0A2H      ;BIAS SELECT =1/9
LCALL WCOM
;lcall wcom2
MOV   A,#10100000B ;ADC SELECT:  SEG0 TO SEG131
LCALL WCOM
MOV   A,#11001000B ;SHL SELECT:  COM63 TO COM0
LCALL WCOM

MOV   A,#00100101B ;SET V0 VOLTAGE
LCALL WCOM
MOV   A,#10000001B ;ELECTRONIC VOLUME MODE SET
LCALL WCOM
MOV   A,B          ;ELECTRONIC VOLUME REGISTER SET;
LCALL WCOM
MOV   A,#11111000B ;SET BOOSTER RATIO=4X
LCALL WCOM
MOV   A,#00000000B
LCALL WCOM
MOV   A,#00101111B ;POWER SETTING(VF=ON,VR=ON,VC=ON)
LCALL WCOM
;MOV   R3,090H     ;WRITE 00H TO DISPLAY DATA RAM
;LCALL TEST
;MOV   A,#10101100B ;STATIC INDICATOR OFF
;LCALL WCOM

;MOV   A,#11111000B
;LCALL WCOM
;MOV   A,#00000000B
;LCALL WCOM
LCALL DELAY
MOV   A,#040H     ;INITIAL DISPLAY LINE
LCALL WCOM
MOV   A,#0A6H     ;NORMAL DISPLAY!!!!!!!!!!!!!!
LCALL WCOM
RET
INT00: PUSH ACC
MOV   A,B
CJNE A,#11000000B,GO_DEC
JMP  OUT_INT00
GO_DEC:DEC A
MOV   B,A
MOV   A,#10000001B
LCALL WCOM
MOV   A,B
LCALL WCOM
OUT_INT00:POP ACC
RETI
INT11: PUSH ACC
MOV   A,B
CJNE A,#11111111B,GO_INC
JMP  OUT_INT11
GO_INC:INC A
MOV   B,A
MOV   A,#10000001B
LCALL WCOM
MOV   A,B
LCALL WCOM
OUT_INT11:POP ACC
RETI

TEST:
DISP2: MOV   R2,#0B0H
MOV   A,R2      ;set page address
LCALL WCOM
MOV   A,#010H  ;set column address MSB

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LCALL    WCOM
mov      a,#00h
;MOV     A,#00H           ;set column address LSB
LCALL    WCOM
DISP1:   MOV     R1,#16       ;set (8*8)*16characters
        MOV     DPTR,#CHAR

DISP0:   MOV     R0,#8
        MOV     A,R3
        MOVC    A,@A+DPTR
        LCALL   WDATA
        INC     DPTR
        DJNZ    RO,DISP0
        DJNZ    R1,DISP1
        INC     R2
        CJNE   R2,#0B8H,DISP2
        RET
TEST2:   MOV     A,#10110000B
        LCALL   WCOM
        MOV     A,#00010000B
        LCALL   WCOM
        MOV     A,#00000000B
        LCALL   WCOM
        MOV     A,#11111111B
        LCALL   WDATA
        MOV     A,#00000001B
        LCALL   LOOP1
        MOV     A,#11111111B
        LCALL   WDATA
        MOV     A,#10110001B
        MOV     R5,A
        LCALL   WCOM
        MOV     A,#00010000B
        LCALL   WCOM
        MOV     A,#00000000B
        LCALL   WCOM
        MOV     R6,#6
TEST2_1: MOV     A,#11111111B
        LCALL   WDATA
        MOV     A,#00000000B
        LCALL   LOOP1
        MOV     A,#11111111B
        LCALL   WDATA
        INC     R5
        MOV     A,R5
        LCALL   WCOM
        MOV     A,#00010000B
        LCALL   WCOM
        MOV     A,#00000000B
        LCALL   WCOM
        DJNZ    R6,TEST2_1
        MOV     A,#10110111B
        LCALL   WCOM
        MOV     A,#00010000B
        LCALL   WCOM
        MOV     A,#00000000B
        LCALL   WCOM
        MOV     A,#11111111B
        LCALL   WDATA
        MOV     A,#10000000B
        LCALL   LOOP1
        MOV     A,#11111111B
        LCALL   WDATA
        RET
TEST5:   MOV     A,#10110000B
        MOV     R5,A
        MOV     R7,#4
TEST5_1: MOV     R6,#2
        MOV     DPTR,#BIG_CHAR
TEST5_2: MOV     A,R5
        LCALL   WCOM
        MOV     A,#00010000B
        LCALL   WCOM
        MOV     A,#00000000B
        LCALL   WCOM

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64128k_l_m_n series sample program

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MOV R3,#128
TEST5_2_1:
MOV A,#0
MOVC A,@A+DPTR
LCALL WDATA
INC DPTR
DJNZ R3,TEST5_2_1
INC R5
DJNZ R6,TEST5_2
DJNZ R7,TEST5_1
RET
LOOP1: MOV R7,#126
LOOP1_1: PUSH ACC
LCALL WDATA
POP ACC
DJNZ R7,LOOP1_1
RET

DELAY: MOV 40H,#032H ;10.05ms
DEL1: MOV 41H,#030H
DEL2: DJNZ 41H,DEL2 ;192us
DJNZ 40H,DEL1
RET

DELAY2: ;SETB EX0
;SETB EX1
LCALL DELAY4
;MOV 40H,#15
DEL21: MOV 41H,#250
DEL22: MOV 42H,#80
DEL23: ;MOV C,P2.0
JB P2.0,KDL
LCALL DELAY4
CHECK_KEY: NOP
NOP
;MOV C,P2.0
JNB P2.0,BREAK1
JMP CHECK_KEY
KDL: DJNZ 42H,DEL23
DJNZ 41H,DEL22
DJNZ 40H,DEL21
BREAK1: ;CLR EX0
;CLR EX1
RET
DELAY3: MOV R1,#25
DEL31: MOV R2,#50
DEL32: DJNZ R2,DEL32
DJNZ R1,DEL31
RET
DELAY4: MOV 43h,#4
DEL41: MOV 44h,#250
DEL42: MOV 45h,#200
DEL43: DJNZ 45h,DEL43
DJNZ 44h,DEL42
DJNZ 43h,DEL41
RET
WCOM: PUSH ACC
CLR CS1
CLR A0
CLR W_R
NOP
MOV P0,A
NOP
SETB R_D
NOP
CLR R_D
NOP
POP ACC
RET
WDATA: PUSH ACC
CLR CS1
SETB A0
CLR W_R
NOP
MOV P0,A
NOP
SETB R_D
NOP

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CLR R_D
NOP
POP ACC
RET

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CHAR:
DB      0FFH,000H,0FFH,000H,0FFH,000H,0FFH,000H
;DB     080H,040H,020H,010H,008H,004H,002H,001H
DB      055H,0AAH,055H,0AAH,055H,0AAH,055H,0AAH
DB      000H,000H,000H,000H,000H,000H,000H,000H

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BIG_CHAR:
DB      004H,004H,0FCH,0FCH,004H,004H,004H,004H,00CH,018H,0F0H,0E0H,000H,004H,004H,0FCH
DB      0FCH,004H,004H,000H,030H,078H,0CCH,0C4H,084H,084H,008H,03CH,000H,000H,004H,004H
DB      0FCH,0FCH,004H,004H,004H,08CH,0F8H,070H,000H,004H,004H,0FCH,0FCH,004H,004H,000H
DB      000H,000H,000H,000H,000H,000H,000H,000H,0C0H,030H,00CH,07CH,0F0H,080H,000H,000H
DB      000H,004H,004H,00CH,01CH,074H,0E4H,080H,000H,080H,064H,014H,00CH,004H,01CH,00CH
DB      004H,004H,004H,0FCH,0FCH,004H,004H,004H,00CH,01CH,004H,004H,0FCH,0FCH,084H,084H
DB      084H,0E4H,004H,01CH,000H,000H,0C0H,0F0H,018H,008H,004H,004H,004H,004H,008H,008H
DB      03CH,000H,004H,004H,0FCH,0FCH,084H,084H,080H,084H,084H,0FCH,0FCH,004H,004H,000H
DB      020H,020H,03FH,03FH,020H,020H,020H,010H,018H,00FH,007H,000H,020H,020H,03FH
DB      03FH,020H,020H,000H,03CH,018H,010H,020H,021H,021H,033H,01FH,00EH,000H,020H,020H
DB      03FH,03FH,021H,021H,001H,001H,000H,000H,000H,020H,020H,03FH,03FH,020H,020H,020H
DB      020H,020H,030H,00CH,020H,030H,038H,027H,002H,002H,002H,002H,023H,03FH,03CH,030H
DB      020H,000H,000H,000H,000H,020H,020H,03FH,03FH,020H,020H,000H,000H,000H,000H,000H
DB      000H,020H,020H,03FH,03FH,020H,020H,000H,000H,000H,020H,020H,03FH,03FH,020H,020H
DB      020H,023H,020H,030H,008H,000H,007H,00FH,018H,030H,020H,020H,020H,020H,020H,010H
DB      008H,000H,020H,020H,03FH,03FH,020H,020H,000H,020H,020H,03FH,03FH,020H,020H,000H
BIG_CHAR2:
DB      010H,010H,0F0H,0F0H,010H,010H,010H,010H,030H,060H,0C0H,080H,000H,010H,010H,0F0H
DB      0F0H,010H,010H,000H,0C0H,0E0H,030H,010H,010H,010H,020H,0F0H,000H,000H,010H,010H
DB      0F0H,0F0H,010H,010H,010H,030H,0E0H,0C0H,000H,010H,010H,0F0H,0F0H,010H,010H,000H
DB      000H,000H,000H,000H,000H,000H,000H,000H,0C0H,030H,0F0H,0C0H,000H,000H,000H,000H
DB      000H,010H,010H,030H,070H,0D0H,090H,000H,000H,000H,090H,050H,030H,010H,070H,030H
DB      010H,010H,010H,0F0H,0F0H,010H,010H,010H,030H,070H,010H,010H,0F0H,0F0H,010H,010H
DB      010H,090H,010H,070H,000H,000H,000H,0C0H,060H,020H,010H,010H,010H,010H,020H,020H
DB      0F0H,000H,010H,010H,0F0H,0F0H,010H,010H,000H,010H,010H,0F0H,0F0H,010H,010H,000H
DB      080H,080H,0FFH,0FFH,080H,080H,080H,080H,040H,060H,03FH,01FH,000H,080H,080H,0FFH
DB      0FFH,080H,080H,000H,0F0H,061H,043H,083H,086H,086H,0CCH,07CH,038H,000H,080H,080H
DB      0FFH,0FFH,084H,084H,004H,006H,003H,001H,000H,080H,080H,0FFH,0FFH,080H,080H,080H
DB      080H,080H,0C0H,030H,080H,0C0H,0E0H,09CH,00BH,008H,008H,009H,08FH,0FEH,0F0H,0C0H
DB      080H,000H,000H,000H,000H,081H,083H,0FEH,0FCH,082H,081H,000H,000H,000H,000H,000H
DB      000H,080H,080H,0FFH,0FFH,080H,080H,000H,000H,000H,080H,080H,0FFH,0FFH,082H,082H
DB      082H,08FH,080H,0C0H,020H,000H,01FH,03FH,060H,0C0H,080H,080H,080H,080H,080H,040H
DB      020H,000H,080H,080H,0FFH,0FFH,082H,082H,002H,082H,082H,0FFH,0FFH,080H,080H,000H

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END