图形点阵液晶显示模块使用手册

CM12232-6SLYA

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一.基本特征

主要技术参数和性能：

(1) 电源： 5V
(2)STN 正视反射模式;
(3)显示模式：黄绿膜、灰膜、蓝膜、黑白膜
(4)显示角度:6 点钟直视;
(5)驱动方式:1/32 Duty,1/6 Bias
(6)工作温度：-10℃∽+55℃，存储温度：-20℃∽+70℃
(7)背光特性：LED 背光（黄绿色、蓝色、白色、红色）
(8)模块封装方式：COB
(9)功耗：

2．机械特性

(1) 外观尺寸:见外观图;
(2) 电阵:122×32 点;
(3) 点尺寸:0.36(W)×0.41(H) (mm);
(4) 点间距:0.04(W)×0.04(H) (mm)

3.引脚特性：

管脚号	管脚名称	LEVER	管脚功能描述
1	VDD	5V	电源电压
2	VSS	0V	电源地
3	VLCD	0∽+5V OR 0∽-5V	LCD 驱动电压 (当 VDD=+3V 时,VLCD 接 0∽-5V 负电压)
4	RES	H/L	复位信号(低电平有效)
5	E1	H/L	读写使能信号
6	E2	H/L	读写使能信号)
7	R/W	H/L	读写选择信号
8	A0	H/L	D/I=“H”，表示 DB7～DB0 为显示数据 D/I=“L”，表示 DB7～DB0 为显示指令数据
9	DB0	H/L	数据线
10	DB1	H/L	数据线
11	DB2	H/L	数据线
12	DB3	H/L	数据线
13	DB4	H/L	数据线
14	DB5	H/L	数据线
15	DB6	H/L	数据线
16	DB7	H/L	数据线
17	VLED+	--	LED(+5V)或 EL 背光源
18	VLED-	--	LED(0V)或 EL 背光源

二.限定参数:

Item	Symbol	Standard Value	Unit	Condition
Power supply voltage	VDD	0~+7.0	V	
LCD driving voltage	VDD~VLCD	0~+12.0		
Input voltage	VIN	VND≤VIN≤VDD		
Operating temperature range	Top	-10~+55	℃	No condition
Storage temperature range	Tst	-20~+70		

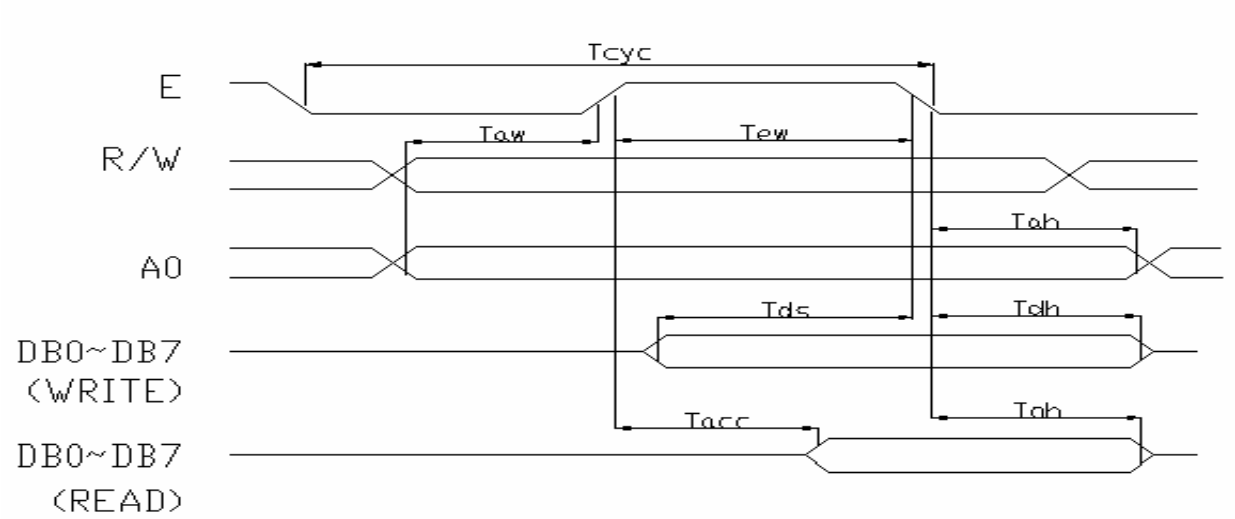
三. 直流特性：

（Ta=0~40℃，VDD=2.7~4.5V）

Item	Symbol	Standard Value			Unit
		MIN	TYP	MAX	
Power Supply	VDD	2.4	5.0	6.0	V
LCD Driving Voltage	VLCD	--	0	--	V
Input High Voltage	VIH	0.8VDD		VDD	V
Output High Voltage	VOH	0.5VDD			V
Input Low Voltage	VIL	GND		0.2VDD	V
Output Low Voltage	VOL			0.1VDD	V
Power Supply Current	IDD		--	240	uA
I/0 Leak Current	IL	-3.0		3.0	uA
Stand-by Current	IDDQ		0.05	10.	uA

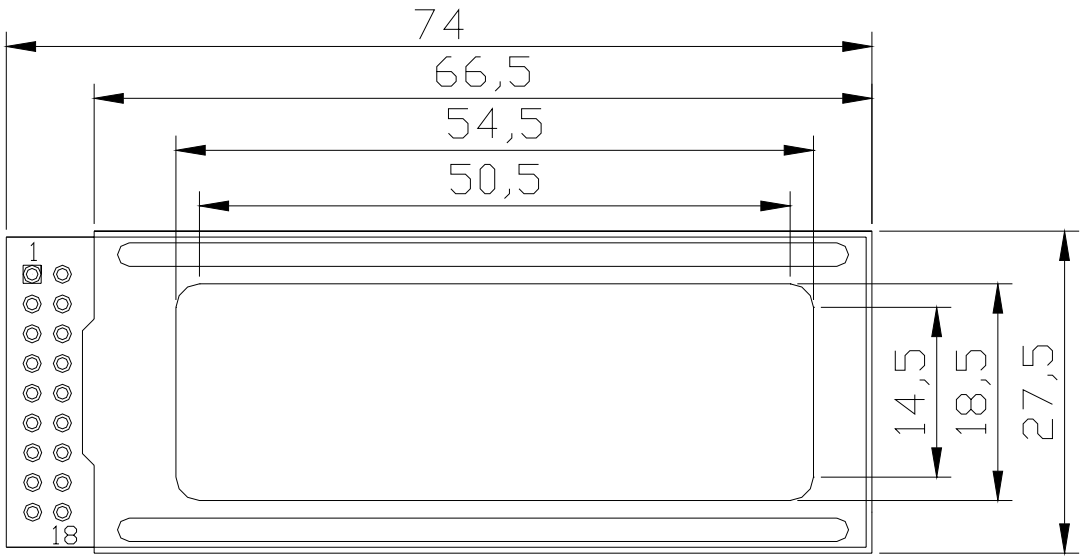
四. 交流特性:

Signal	Parameter	Symbol	MIN	MAX	Unit	Condition
A0,/RW	System cycle time	Tcyc	2000	--	ns	
	Address setup time	Taw	40	--	ns	
	Address hold time	Tah	20	--	ns	
D0~D7	Data setup time	Tds	160	--	ns	
	Data hold time	Tdh	20	--	ns	
	Output disable time	Tch	20	120	ns	CL=100p F
	Access time	Tacc	--	180	ns	
E	Enable pulse width(Read)	Tew	200	--		
	Enable pulse width(Write)		160	--	ns	
Input wave width rise time		Tr	--	15	ns	

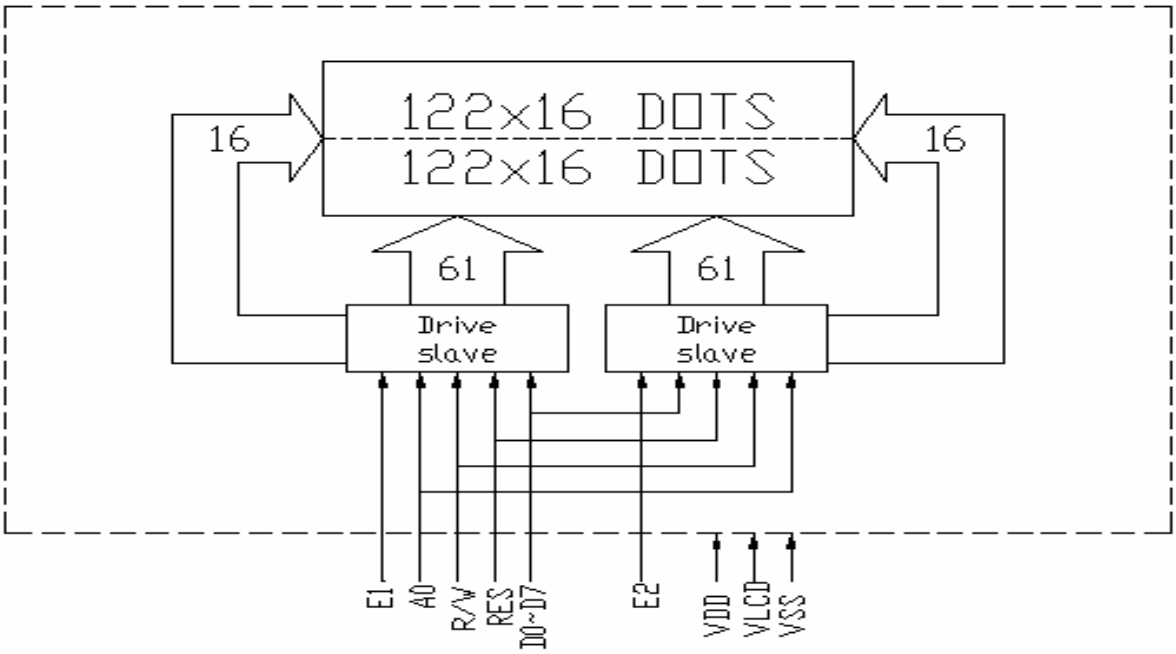


Bus Read /Write Operaion Sequence

五. 机械尺寸图:



六. 原理图:



七．DDRAM 地址表

Page	Data		Com No	Drive
2	D0 : D7	: : 122 X 16 PLXELS	0 : : 15	Slave
3	D0 : D7	: : 122 X 16 PLXELS		
0	D0 : D7	: : 122 X 16 PLXELS	16 : : 31	Master
1	D0 : D7	: : 122 X 16 PLXELS		

Column Addr	ADC=0	00H ···· 3C	00H ···· 3C
	Seg No	0 ···· 60	0 ···· 60
	Drive	Slave	Master

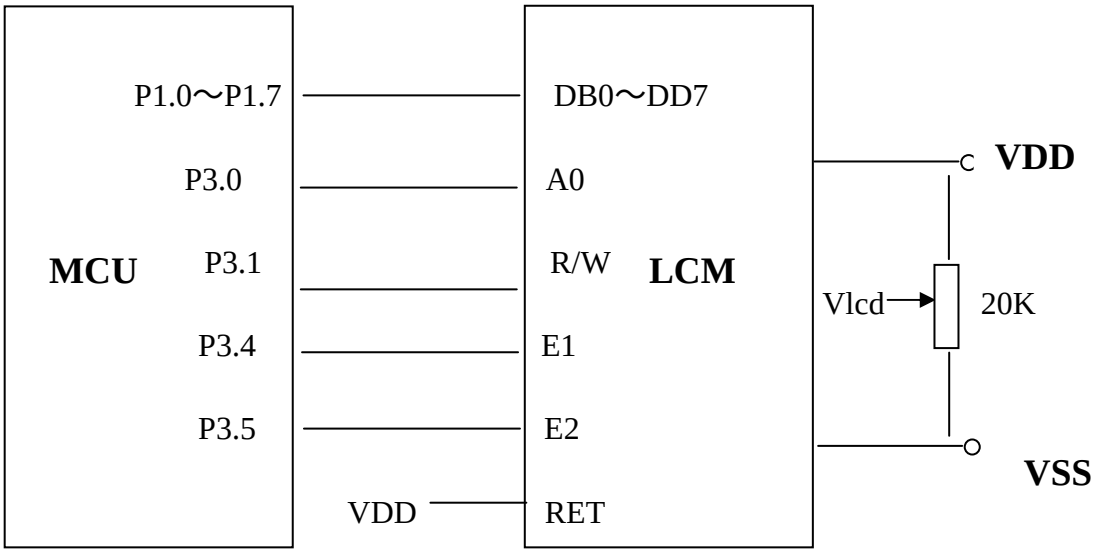
八. 指令表:

INSTRCTION	CODE										FUNCTION
	R/W	D/I	D7	D6	D5	D4	D3	D2	D1	D0	
DISPLAY ON/OFF	0	0	1	0	1	0	1	1	1	1/0	Switch the entire display ON or OFF，regardless of the display RAM's Data or the internal status. 1: ON 0: OFF
Display Start Line	0	0	1	1	0	Display start Line (0 ···· 31)					Determines the line of RAM data to be displayed at the display's top line (COM0)
Page Address set	0	0	1	0	1	1	1	0	PAGE: (0~3)		Sets the page of the Display in the Address register(X address)
Column (seg) Address set	0	0	0	Column address(0~79)							Sets the column of the Display in the column address register(Y address)
Status Read	1	0	Busy	ADC	ON/OFF	RST	0	0	0	0	Read status Busy 1:insternal operation 0:Ready ADC 1:Rightward output 0:Leftward RST 1:Reseting 0:Normal ON/OFF 1:Display off 0:Display on
Write Display Data	0	1	Write data								Writes the data on the Data bus to RAM
Read Display Data	1	1	Read data								Reads data from the Display RAM onto the Data BUS
ADC Select	0	0	1	0	1	0	0	0	0	0/1	Determine the clockwise or Counterclockwise reading of the display Data RAM 0: Clockwise 1: Counterclockwise
Static Drive ON/OFF	0	0	1	0	1	0	0	1	0	0/1	Select the dynamic or static Driving. 1:Static driving 0: Dynamic driving
Duty Ratio Select	0	0	1	0	1	0	1	0	0	0/1	Select the duty ratio 1:1/32 duty 0:1/16 duty
Read Modify Write	0	0	1	1	1	0	0	0	0	0	Increment the column Address register when writing. But no-change when reading.
End	0	0	1	1	1	0	1	1	1	0	Release from the Read Modify Write Mode.

Reset	0	0	1	1	1	0	0	0	1	0	Set the Display Start Line Register to 1st line, column Address count to 0 and Page Add. Resister to 0.
Power Save(dual command)	0 0	0 0	0 0	1 1	0 0	1 1	0 0	1 1	1 0	0 1	Set the power save mode by selecting display off and static driving on

九．应用举例

CM12232-6 与单片机 8031 的一种接口如图 5 所示：(VDD=+5V)




```
        ORG     0000H
        LJMP    MAIN
        ORG     0003H
        LJMP    INT
        ORG     0100H
        A0      EQU     P3.0
        RW      EQU     P3.1
        E1      EQU     P3.4
        E2      EQU     P3.5
        COMMAND EQU     20H
        DATA1   EQU     21H
;***********************************************
INT:
    PUSH    07H
```

```
    PUSH     06H
    PUSH     05H
    SJMP     $
    POP      05H
    POP      06H
    POP      07H
    RETI

;*****************************************************
;********读 BF 和 AC 值************************
 PR:
        PUSH      ACC
        MOV       P1,#0FFH
        CLR       A0
        SETB      RW
        SETB      E1
        MOV       COMMAND,P1
        CLR       E1
        POP       ACC
        RET

;***********写指令代码  E1**********************
    PR0:
        CLR          A0
        SETB         RW
     PR01:
        MOV          P1,#0FFH
        SETB         E1
        MOV          A,P1
        CLR          E1
        JB           ACC.7,PR01
        CLR          RW
        MOV          P1,COMMAND
        SETB         E1
        CLR          E1
        RET
 ;***********写显示数据  E1**********************
  PR1:
      CLR          A0
      SETB         RW
  PR11:
      MOV          P1,#0FFH
      SETB         E1
      MOV          A,P1
```

```
        CLR         E1
        JB          ACC.7,PR11
        SETB        A0
        CLR         RW
        MOV         P1,DATA1
        SETB        E1
        CLR         E1
        RET
;**********读显示数据  E1*************************
   PR2:
        CLR        A0
        SETB       RW
   PR21:
        MOV        P1,#0FFH
        SETB       E1
        MOV        A,P1
        CLR        E1
        JB         ACC.7,PR21
        SETB       A0
        MOV        P1,#0FFH
        SETB       E1
        MOV        DATA1,P1
        CLR        E1
        RET
;**********写指令代码  E2*****************************
   PR3:
        CLR       A0
        SETB      RW
   PR31:
        MOV      P1,#0FFH
        SETB     E2
        MOV      A,P1
        CLR      E2
        JB       ACC.7,PR31
        CLR      RW
        MOV      P1,COMMAND
        SETB     E2
        CLR      E2
        RET
;***********写显示数据  E2*****************************
   PR4:
        CLR       A0
        SETB      RW
  PR41:
```

```
        MOV     P1,#0FFH
        SETB    E2
        MOV     A,P1
        CLR     E2
        JB      ACC.7,PR41
        SETB    A0
        CLR     RW
        MOV     P1,DATA1
        SETB    E2
        CLR     E2
        RET
;************读显示数据  E2*******************************
  PR5:
      CLR       A0
      SETB      RW
 PR51:
      MOV       P1,#0FFH
      SETB      E2
      MOV       A,P1
      CLR       E2
      JB        ACC.7,PR51
      SETB      A0
      MOV       P1,#0FFH
      SETB      E2
      MOV       DATA1,P1
      CLR       E2
      RET

;************清显示 RAM 区子程序(清屏)**********************

   L:
      MOV     R4,#00H
  L1:MOV      A,R4
      ORL     A,#0B8H
      MOV     COMMAND,A
      LCALL   PR0
      LCALL   PR3
      MOV     COMMAND,#00H
      LCALL   PR0
      LCALL   PR3
      MOV     R3,#50H
   L2:MOV     DATA1,R5
      LCALL   PR1
      LCALL   PR4
```

```
        DJNZ    R3,L2
        INC     R4
        CJNE    R4,#04H,L1
        RET

;********延时程序*************************
   DELAY:
        MOV     R6,#00H
        MOV     R7,#00H
   DELAY1:
        NOP
        DJNZ    R7,DELAY1
        DJNZ    R6,DELAY1
        RET

;*****************************************************
   MAIN:
      MOV       SP,#70H
      MOV       P2,#00H
      SETB      EA
      SETB      EX0
      SETB      IT0

   CHUSHI:
      MOV       COMMAND,#0E2H       ;设置复位
      LCALL     PR0
      LCALL     PR3
      MOV       COMMAND,#0A4H       ;设置退出休闲状态
      LCALL     PR0
      LCALL     PR3
      MOV       COMMAND,#0A9H       ;设置占空比 1/32
      LCALL     PR0
      LCALL     PR3
      MOV       COMMAND,#0A0H       ;设置 ADC 选择指令
      LCALL     PR0
      LCALL     PR3
      MOV       COMMAND,#0C0H       ;设置起始行
      LCALL     PR0
      LCALL     PR3
      MOV       COMMAND,#0AFH       ;设置开显示
      LCALL     PR0
      LCALL     PR3

      LCALL     PHIC
```

```
        MOV     COMMAND,#0E2H       ;设置复位
        LCALL   PR0
        MOV     COMMAND,#0C0H       ;设置起始行
        LCALL   PR0
        LCALL   PR3
        MOV     COMMAND,#0AFH       ;设置开显示
        LCALL   PR0
        LCALL   PR3

        MOV     R5,#0FFH
        LCALL   L
        LCALL   DELAY
        LCALL   DELAY
        LCALL   DELAY
        LCALL   DELAY

        MOV     R5,#0AAH
        LCALL   L
        LCALL   DELAY
        LCALL   DELAY
        LCALL   DELAY
        LCALL   DELAY

        MOV     R5,#55H
        LCALL   L
        LCALL   DELAY
        LCALL   DELAY
        LCALL   DELAY
        LCALL   DELAY

    LL:
        MOV     R4,#00H
LL1:    MOV     A,R4
        ORL     A,#0B8H
        MOV     COMMAND,A
        LCALL   PR0
        LCALL   PR3
        MOV     COMMAND,#00H
        LCALL   PR0
    ;   LCALL   PR3
        MOV     R3,#28H
LL2:    MOV     DATA1,#0FFH
        LCALL   PR1
```

```
      ; LCALL   PR4
        MOV     DATA1,#00H
        LCALL   PR1
      ; LCALL   PR4
        DJNZ    R3,LL2
        MOV     COMMAND,#00H
        LCALL   PR3
        MOV     R3,#28H
 R_1:MOV    DATA1,#00H
        LCALL   PR4
        MOV     DATA1,#0FFH
        LCALL   PR4
        DJNZ    R3,R_1
        INC     R4
        CJNE    R4,#04H,LL1
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY

    LLL:
        MOV     R4,#00H
LLL1:MOV     A,R4
        ORL     A,#0B8H
        MOV     COMMAND,A
        LCALL   PR0
        LCALL   PR3
        MOV     COMMAND,#00H
        LCALL   PR0
      ; LCALL   PR3
        MOV     R3,#28H
 LLL2:MOV    DATA1,#00H
        LCALL   PR1
    ;   LCALL   PR4
        MOV     DATA1,#0FFH
        LCALL   PR1
    ;   LCALL   PR4
        DJNZ    R3,LLL2
        MOV     R3,#28H
        MOV     COMMAND,#00H
        LCALL    PR3
 R_2:MOV     DATA1,#0FFH
        LCALL    PR4
        MOV     DATA1,#00H
```

```
        LCALL    PR4
        DJNZ     R3,R_2
        INC      R4
        CJNE     R4,#04H,LLL1
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY

 LLLL:
        MOV      R4,#00H
LLLL11:MOV       A,R4
        ORL      A,#0B8H
        MOV      COMMAND,A
        LCALL    PR0
        LCALL    PR3
        MOV      COMMAND,#00H
        LCALL    PR0
       ; LCALL   PR3
        MOV      R3,#28H
LLLN11:MOV       DATA1,#0AAH
        LCALL    PR1
       ; LCALL   PR4
        MOV      DATA1,#55H
        LCALL    PR1
       ; LCALL   PR4
        DJNZ     R3,LLLN11
        MOV      COMMAND,#00H
        LCALL    PR3
        MOV      R3,#28H
  R_3:MOV        DATA1,#55H
        LCALL    PR4
        MOV      DATA1,#0AAH
        LCALL    PR4
        DJNZ     R3,R_3
        INC      R4
        CJNE     R4,#04H,LLLL11
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY

        LLLLL:
        MOV      R4,#00H
```

```
LLLL22:MOV       A,R4
       ORL       A,#0B8H
       MOV       COMMAND,A
       LCALL     PR0
       LCALL     PR3
       MOV       COMMAND,#00H
       LCALL     PR0
      ; LCALL     PR3
       MOV       R3,#28H
LLLN22:MOV       DATA1,#55H
       LCALL     PR1
      ; LCALL     PR4
       MOV       DATA1,#0AAH
       LCALL     PR1
       ;LCALL    PR4
       DJNZ      R3,LLLN22
       MOV       COMMAND,#00H
       LCALL     PR3
       MOV       R3,#28H
  R_4:MOV       DATA1,#0AAH
       LCALL     PR4
       MOV       DATA1,#55H
       LCALL     PR4
       DJNZ      R3,R_4
       INC       R4
       CJNE      R4,#04H,LLLL22
       LCALL      DELAY
       LCALL      DELAY
       LCALL      DELAY
       LCALL      DELAY

  ;*********************中文汉字*****************
     TU_L:
       MOV       R4,#00H
       MOV       DPTR,#ZHONG
   TU1:MOV       A,R4
       ORL       A,#0B8H
       MOV       COMMAND,A
       LCALL     PR0
     ;   LCALL    PR3
       MOV       COMMAND,#00H
       LCALL     PR0
      ; LCALL     PR3
       MOV       R3,#50H
```

```
TU2:CLR    A
    MOVC    A,@A+DPTR
    MOV     DATA1,A
    LCALL   PR1
    ;LCALL   PR4
    INC     DPTR
    DJNZ    R3,TU2
    INC     R4
    CJNE    R4,#04H,TU1


     TU_R:
    MOV     R4,#00H
    MOV     DPTR,#WEI
TU3:MOV     A,R4
    ORL     A,#0B8H
    MOV     COMMAND,A
    LCALL   PR3
    MOV     COMMAND,#00H
    LCALL   PR3
    MOV     R3,#50H
TU4:CLR    A
    MOVC    A,@A+DPTR
    MOV     DATA1,A
    LCALL   PR4
    INC     DPTR
    DJNZ    R3,TU4
    INC     R4
    CJNE    R4,#04H,TU3
    LCALL    DELAY
    LCALL    DELAY
    LCALL    DELAY
    LCALL    DELAY
    LJMP     MAIN
;*****************************************
PHIC:
    MOV     R5,#00H
    LCALL   L
    MOV     R4,#00H
    MOV     DPTR,#TABL
PHIC0:
    MOV     A,R4
    ORL     A,#0B8H
    MOV     COMMAND,A
```

```
        LCALL   PR0
        MOV     COMMAND,#00H
        LCALL   PR0
        MOV     R3,#61
    PHIC1:
        CLR   A
        MOVC   A,@A+DPTR
        MOV    DATA1,A
        LCALL   PR1
        INC    DPTR
        DJNZ    R3,PHIC1
        INC     R4
        CJNE    R4,#04H,PHIC0
   PHIC2:
        MOV     R4,#00H
        MOV    DPTR,#TABR
    PHIC20:
        MOV     A,R4
        ORL     A,#0B8H
        MOV     COMMAND,A
        LCALL   PR3
        MOV     COMMAND,#00H
        LCALL   PR3
        MOV     R3,#61
    PHIC21:
        CLR   A
        MOVC   A,@A+DPTR
        MOV    DATA1,A
        LCALL   PR4
        INC    DPTR
        DJNZ    R3,PHIC21
        INC     R4
        CJNE    R4,#04H,PHIC20
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY
        LCALL    DELAY
        RET
 ;*******************************************
 ZHONG:
DB  082H,08AH,0B2H,086H,0DBH,0A1H,091H,08DH,088H,020H,010H,008H,086H,064H,040H,000H
DB  000H,000H,000H,000H,07EH,02AH,02AH,02AH,02AH,02AH,02AH,07EH,000H,000H,000H,000H
DB  010H,012H,092H,072H,0FEH,051H,091H,000H,022H,0CCH,000H,000H,0FFH,000H,000H,000H
DB  008H,008H,088H,0FFH,048H,028H,000H,0C8H,048H,048H,07FH,048H,0C8H,000H,000H,000H
```

```
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  020H,010H,008H,006H,0FFH,002H,004H,058H,048H,020H,022H,011H,008H,007H,002H,000H
DB  000H,07FH,025H,025H,025H,025H,07FH,000H,000H,07FH,025H,025H,025H,025H,07FH,000H
DB  004H,002H,001H,000H,0FFH,000H,004H,004H,004H,002H,002H,002H,0FFH,001H,001H,000H
DB  001H,041H,080H,07FH,000H,040H,040H,020H,013H,00CH,00CH,012H,021H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,082H,08AH,0B2H,086H,0DBH
DB  0A1H,091H,08DH,088H,020H,010H,008H,086H,064H,040H,000H,000H,000H,000H,000H,07EH
DB  02AH,02AH,02AH,02AH,02AH,02AH,07EH,000H,000H,000H,000H,014H,024H,044H,084H,064H
DB  01CH,020H,018H,00FH,0E8H,008H,008H,028H,018H,008H,000H,040H,041H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,020H,010H,008H,006H,0FFH
DB  002H,004H,058H,048H,020H,022H,011H,008H,007H,002H,000H,000H,07FH,025H,025H,025H
DB  025H,07FH,000H,000H,07FH,025H,025H,025H,025H,07FH,000H,020H,010H,04CH,043H,043H
DB  02CH,020H,010H,00CH,003H,006H,018H,030H,060H,020H,000H,040H,020H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H

WEI:
DB  048H,008H,000H,000H,004H,084H,044H,0E4H,034H,02CH,027H,024H,024H,024H,0E4H,004H
DB  004H,004H,000H,0FEH,002H,032H,04EH,082H,000H,0FEH,04AH,0CAH,04AH,04AH,04AH,07EH
DB  000H,000H,000H,080H,040H,030H,00EH,084H,000H,000H,00EH,010H,060H,0C0H,080H,080H
DB  020H,024H,024H,024H,024H,024H,024H,024H,024H,024H,004H,004H,0FCH,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  060H,020H,000H,002H,001H,000H,000H,0FFH,009H,009H,009H,029H,049H,0C9H,07FH,000H
DB  000H,000H,000H,0FFH,000H,002H,004H,003H,000H,0FFH,040H,020H,003H,00CH,012H,021H
DB  060H,020H,001H,020H,070H,028H,024H,023H,031H,010H,010H,014H,078H,030H,001H,000H
DB  000H,03FH,009H,009H,009H,009H,009H,009H,01FH,000H,040H,080H,07FH,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  0CEH,004H,000H,0FCH,004H,002H,002H,0FCH,004H,004H,004H,0FCH,000H,000H,080H,040H
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DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  01FH,020H,040H,047H,042H,041H,040H,05FH,040H,042H,044H,043H,040H,000H,000H,020H
DB  038H,003H,038H,040H,040H,049H,052H,041H,040H,070H,000H,009H,030H,000H,000H,000H
DB  000H,033H,033H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
DB  000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H,000H
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TABL:
;  宽×高（像素）：61×32
;  字模格式/大小 ：单色点阵液晶字模，纵向取模，字节倒序/244 字节
;  数据转换日期  ：2006-7-3 15:11:15
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DB 041H,021H,091H,081H,001H,001H,001H,001H,079H,0A9H,0A9H,0A9H,0A9H,0A9H,079H,001H
DB 001H,001H,001H,091H,091H,0F9H,089H,091H,091H,031H,021H,0F9H,001H,001H,001H,001H
DB 001H,041H,0F9H,041H,081H,0A1H,0A1H,0F9H,0A1H,0A1H,001H,001H,001H,0FFH,000H,000H
DB 000H,000H,000H,000H,000H,000H,011H,009H,007H,03FH,005H,009H,02CH,032H,013H,009H
DB 004H,000H,000H,03FH,025H,025H,025H,03FH,000H,03FH,025H,025H,025H,03FH,000H,000H
DB 00CH,003H,03FH,006H,00AH,008H,005H,004H,03FH,004H,004H,000H,000H,002H,022H,01FH
DB 021H,020H,033H,01CH,018H,016H,021H,020H,000H,000H,0FFH,000H,000H,000H,000H,000H
DB 000H,000H,010H,010H,0F0H,010H,010H,000H,0F0H,090H,090H,090H,010H,000H,0F0H,000H
DB 000H,000H,000H,000H,000H,000H,080H,000H,000H,000H,0E0H,010H,010H,010H,0E0H,000H
DB 010H,010H,010H,090H,070H,000H,0F0H,050H,050H,050H,090H,000H,0F0H,050H,050H,050H
DB 090H,000H,080H,080H,080H,080H,080H,0FFH,080H,080H,080H,080H,080H,080H,080H,080H
DB 080H,08FH,080H,080H,080H,08FH,088H,088H,088H,088H,080H,08FH,088H,088H,088H,088H
DB 080H,080H,080H,088H,080H,080H,080H,087H,088H,088H,088H,087H,080H,080H,080H,08CH
DB 083H,080H,080H,084H,088H,088H,088H,087H,080H,084H,088H,088H,088H,087H,080H,080H
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TABR:
;  宽×高（像素）：61×32
;  字模格式/大小 ：单色点阵液晶字模，纵向取模，字节倒序/244 字节
;  数据转换日期  ：2006-7-3 16:46:42
;-------------------------------------------------------------------------
;DB 03DH,020H,008H,;宽的像素数,高的像素数，宽的字节数，参数设置可选
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DB 039H,061H,081H,001H,001H,001H,041H,049H,049H,049H,049H,049H,049H,049H,009H,0F9H
DB 001H,001H,001H,001H,001H,001H,001H,001H,001H,001H,001H,001H,001H,0FFH,003H,001H,03FH
DB 00AH,00AH,00AH,02AH,03FH,000H,000H,000H,000H,03FH,000H,008H,007H,000H,03FH,010H
DB 013H,00CH,013H,030H,000H,000H,001H,010H,018H,01CH,013H,011H,010H,014H,018H,000H
DB 001H,000H,000H,000H,01FH,009H,009H,009H,009H,00FH,000H,020H,03FH,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,000H,000H,000H,0FFH,000H,060H,010H,010H,010H,0E0H
DB 000H,0C0H,0A0H,090H,090H,020H,000H,000H,020H,0F0H,000H,000H,000H,020H,010H,090H
DB 090H,060H,000H,010H,010H,010H,090H,070H,000H,000H,020H,0F0H,000H,000H,000H,0C0H
DB 0A0H,090H,090H,020H,000H,0E0H,010H,010H,010H,0E0H,000H,000H,000H,000H,000H,000H
DB 000H,000H,000H,000H,000H,000H,0FFH,080H,08CH,08AH,089H,089H,088H,080H,087H,088H
DB 088H,088H,087H,080H,080H,080H,08FH,080H,080H,080H,086H,088H,088H,088H,087H,080H
DB 080H,080H,08CH,083H,080H,080H,080H,080H,08FH,080H,080H,080H,087H,088H,088H,088H
DB 087H,080H,084H,089H,089H,085H,083H,080H,080H,080H,080H,080H,080H,080H,080H,080H
DB 080H,080H,080H,0FFH


      END
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