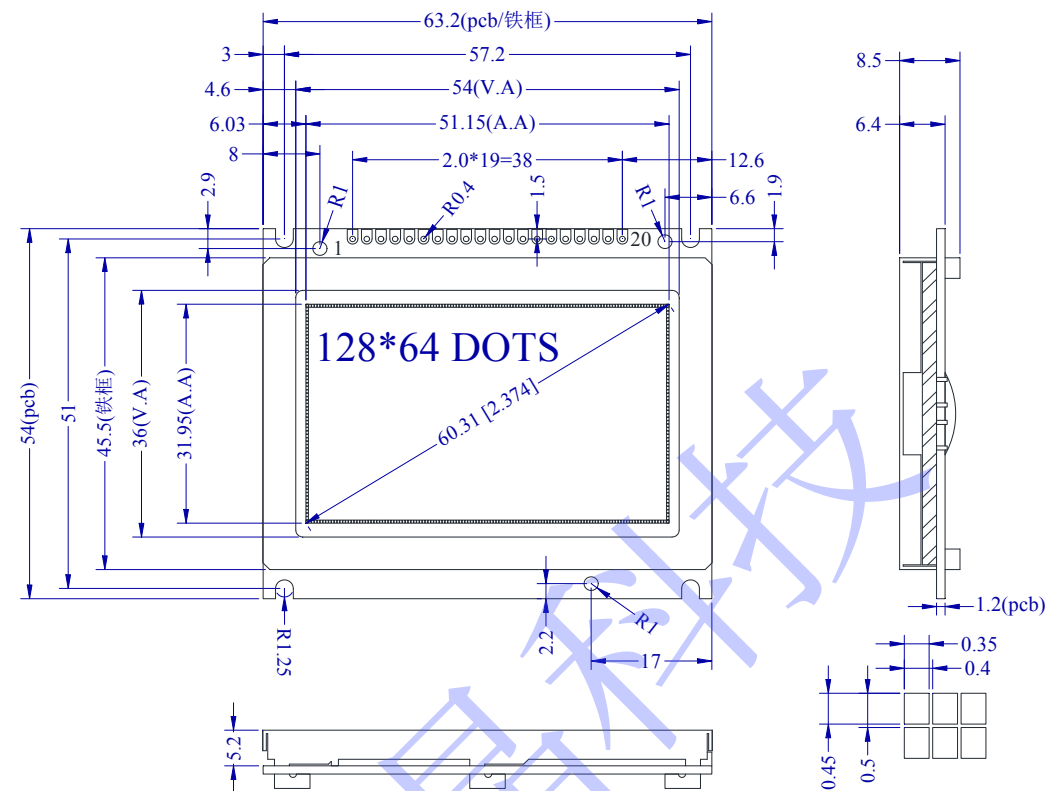


一、模块尺寸



项目	参考值
LCM 尺寸 (长×宽×厚)	63.2×54.0×8.5
可视区域 (长×宽)	54.0×36.0
点间距 (长×宽)	0.4×0.5
点尺寸 (长×宽)	0.35×0.45

二、功能介绍

- ✧ 工作电压 3.3V 或者 5.5V，出厂默认 5.0V
- ✧ 通讯方式：8 位并行通讯接口（6800），
- ✧ 128*64 点阵显示内存，纵向取模，字节倒序 方式
- ✧ ASCII 字符图案
 - 本程序例程中有 ASCII 码点阵表 5*8，8*16 方便调用
- ✧ 低功率省电设计(除背光 45MA)
 - 正常模式（1mA typ VDD=5V）
 - 待机模式（30uA max VDD=5V）
- ✧ 自动上电复位功能
- ✧ 指令方面，
 - 上电即可使用，没有复杂的初始化设置
 - 纯点阵显示器，不需要太多时间来研读本资料，用户可以专心在软件设计上，本手册提供了比较长的程序例程，用户可以用来移植使用
- ✧ 占空比 1/64 偏压比 1/9
- ✧ 工作温度-20 度~+70 度
- ✧ 储存温度-30 度~+80 度
- ✧ 显示颜色；蓝白，黄绿，灰白，可以订制

三. 接口定义

引脚	名称	方向	说明
1	VSS	--	电源负端 (0V)
2	VDD	--	电源正端 (+3.3V 或 +5.0V, 出厂时设定 +5.0V)
3	VO	--	LCD 对比度调节, 取 VOUT 电压 (VO-VDD 电压 9.5V 对比度较佳)
4	RS	I	=1, 写数据
			=0, 写指令
5	R/W	I	=1, 写模式
			=0, 读模式
6	E	I	使能信号,
7-14	DB0 ~ DB7	I/O	单片机与模块之间并口的数据传送通道, DB7 能用作忙标志读出 (判忙)
15	CSA (CS1)	I	左半屏选取信号 (低电平有效)
16	CSB (CS2)	I	右半屏选取信号 (低电平有效)
17	/REST	I	复位信号 (接 VDD 或者悬空)
18	VOUT	-	LCD 电压输出或者输入 (默认为输出) 用于调节对比度电压
19	LEDA	-	背光电源的正极 (3.3V 或者 5V) 出厂 5.0V
20	LEDK	-	背光电源负极

四．电性参数(直流)

名称	符号	测试条件	参数范围			单位
			最小	标准	最大	
模块工作电压	VDD	—	4.8/3.2	5.0/3.3	5.2/3.4	V
玻璃电压	V0	V0-VDD	7.5	9.5	13.5	V
背光工作电压	VLED	—	4.8/3.2	5.0/3.3	5.2/3.4	V
IO 输入高电平	VIH	—	Vdd*0.4	—	VDD	V
IO 输入低电平	VIL	—	-0.3	—	0.6	V
LCM 输出高电平	VOH	—	2.4	—	—	V
LCM 输出低电平	VOL	—	—	—	0.4	V
模块工作电流	IDD	=VDD	—	—	1.2	MA
模块待机电流	IDO	=VDD	—	—	50	uA
背光工作电流	ILED	=VLED	30	45	60	MA

五．显示原理

a) DDRAM 显示屏之间的关系

Y=	左半屏64列					右半屏64列					行号
	0	1	...	62	63	0	1	...	62	63	
X=0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	0
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	7
↓	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	8
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	55
X=7	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	DB0	56
	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	DB7	63

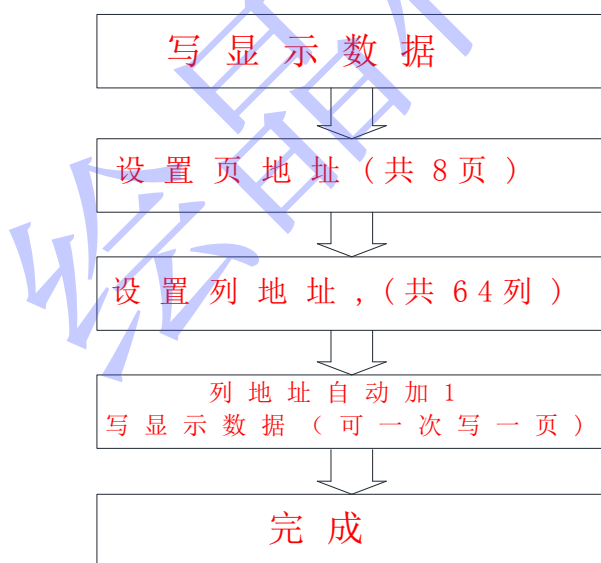
12864 图形点阵显示屏是两个 64*64 点阵显示的屏合在一起，如

图分的左半屏，右半屏，是一款纯点阵屏，在编源代码的时候要注意一下（两个 CS 控制左右半屏）

这款纯点阵屏的地址结构如图，列地址 $(0-63) * 2$ ，行地址不是 $0-63$ ，而是 $0-7$ 页，每 8 行分成了一页，共 8 页， $8 \text{ 行} * 8 \text{ 页} = 64 \text{ 行}$ ，8 行和列正好组成了一个字节（上低下高）**字节倒序**，这个结构很适合单片机配合各种字符或字库 IC 内的字符或字库表格，在使用取模软件的时候使用**纵向取模**方式，

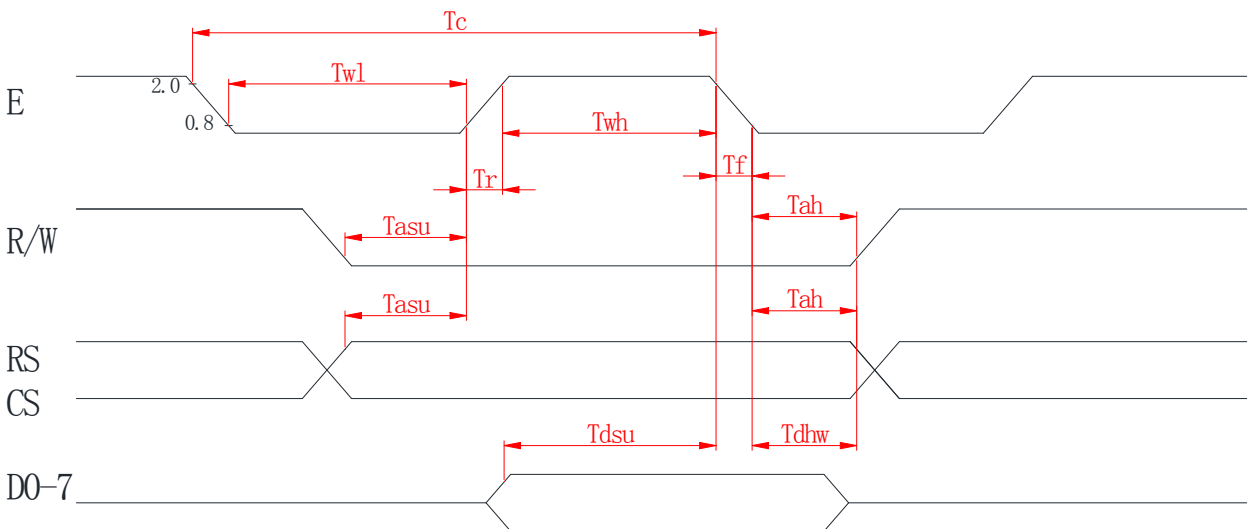
除了设置列地址和页地址外，还需要设置一个首行地址，本产品显示屏的第一行设置在 COM0，首行地址设置 0 就行，假如你设置 8，那么显示都会从 8 行开始。

写入显示数据流程图

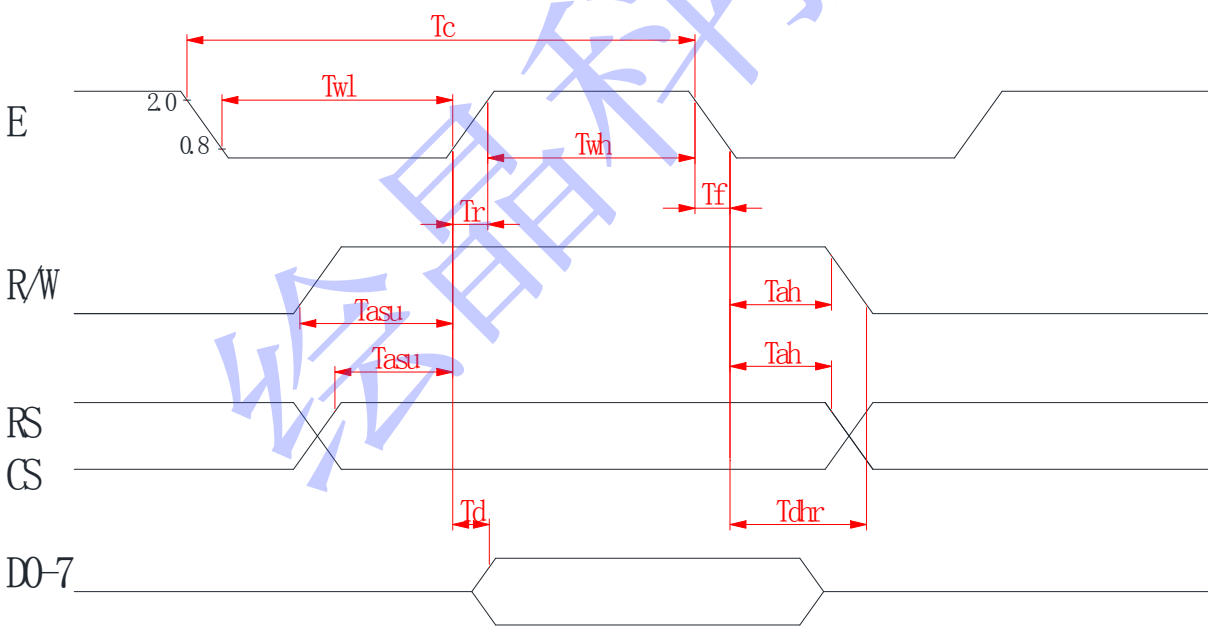


六. 时序图

写时序



读时序



名称	符号	最小值	典型值	最大值	单位
E周期时间	T_c	1000	--	--	ns
E高电平时间	T_{wh}	450	--	--	ns

E低电平时间	T_{WL}	450	--	--	ns
E上升沿时间	T_R	--	--	25	ns
E下降沿时间	T_F	--	--	25	ns
地址建立时间	T_{ASU}	140	--	--	ns
地址保持时间	T_{AH}	10	--	--	ns
数据建立时间	T_{DSU}	200	--	--	ns
数据延迟时间	T_D	--	--	320	ns
写数据保持时间	T_{DHW}	10	--	--	ns
读数据保持时间	T_{DHR}	20	--	--	ns

绘晶科技

七、用户指令集说明：

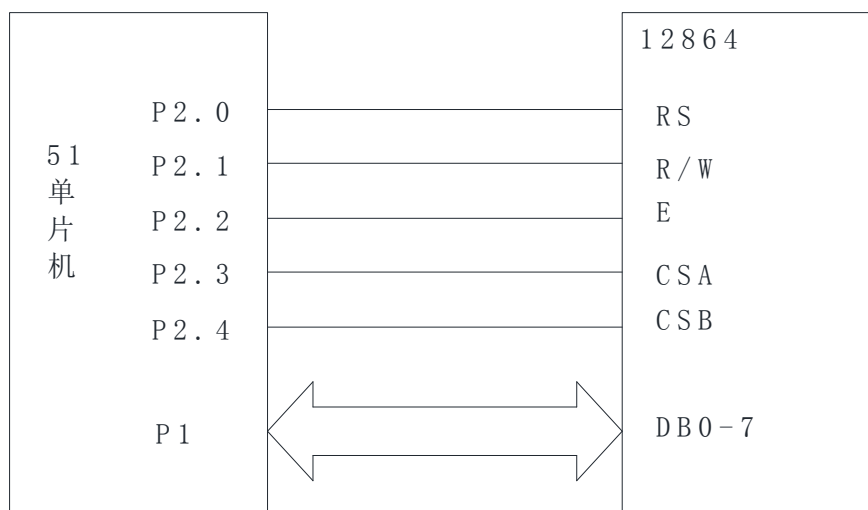
1、指令表：

N	指令	指令码	HE	说明
---	----	-----	----	----

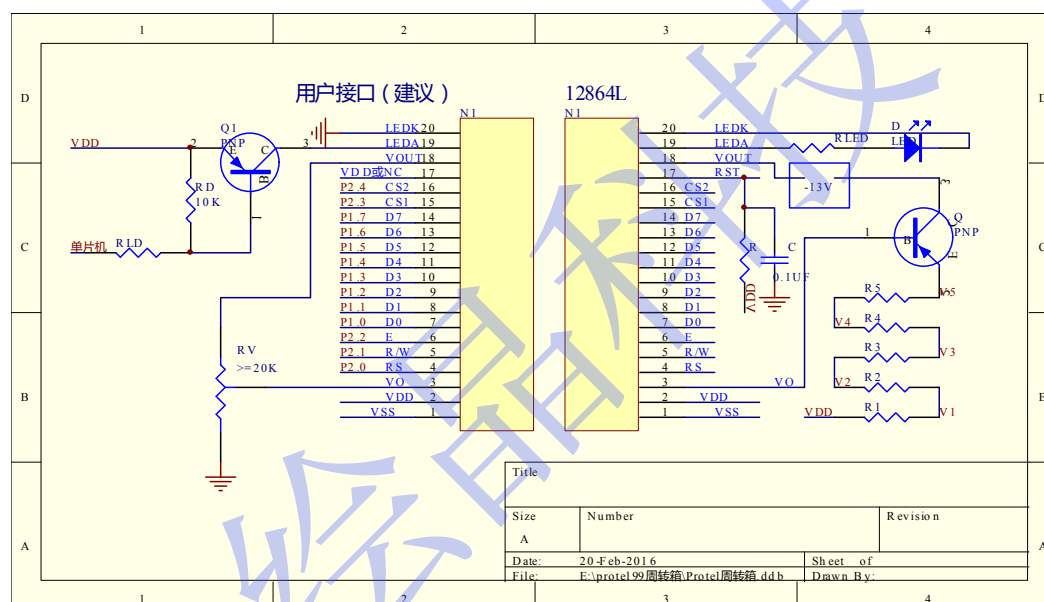
0		RS	R/ W	D7	D6	D5	D4	D3	D2	D1	D0	X	
1	显示开关	0	0	0	0	1	1	1	1	1	LH	3F	控制显示器的开关，不影响DDRAM中数据和内部状态。 0：关； 1：开
2	Y地址设置	0	0	0	1	AC 5	AC 4	AC 3	AC 2	AC 1	AC 0	40	列地址设置（共64列）
3	面地址设置	0	0	1	0	1	1	1	AC 2	AC 1	AC 0	B8	页地址设置（共8页）
4	首行设置	0	0	1	1	AC 5	AC 4	AC 3	AC 2	AC 1	AC 0	C0	设置显示屏第一行的位置
5	状态读	0	1	Bu sy	0	N/ F	RE ST	0	0	0	0		读状态： Busy=0；空闲 Busy=1；工作中 N/F=0；显示开 N/F=1；显示关 REST=0；正常 REST=1；复位
6	写数据	1	0	D7	D6	D5	D4	D3	D2	D1	D0		写数据
7	读数据	1	1	D7	D6	D5	D4	D3	D2	D1	D0		读数据

八、单片机接线图

单片机连接示意图



完整的连接原理图展示



九、程序例程

```
//,单片机:89S52,STC完全兼容
//晶振:12M,编译软件:KEIL 7.06
//并行连接方式,P2.0-RS,P2.1-RW,P2.2-E
//有STM32例程,需要请找业务要资料
```

```
#include<reg52.h>
#include <intrins.h>
```

```
sbit RS=P2^0; sbit RW=P2^1; sbit E=P2^2;
```

```
sbit stop=P3^2;
```

```
sbit CSB=P2^4; //右半屏片选(低有效)
```

```
sbit CSA=P2^3; //左半屏片选(低有效)
```

```
typedef unsigned int uint;
```

```
typedef unsigned char uchar;
```

```
uchar m1,z,z1,d,d1,s,s1,s10,s100;
```

```
uchar code ascii_table_8x16[95][16];
```

```
uchar code ascii_table_5x8[95][5];
```

```
uchar code hui1[]={/*-- 文字: 绘 --*/
```

```
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
```

```
0x20,0x30,0xAC,0x63,0x10,0x20,0x10,0x48,0x44,0x43,0x44,0x48,0x10,0x20,
0x20,0x00,
```

```
0x22,0x67,0x22,0x12,0x12,0x40,0xE2,0x52,0x4A,0x46,0x42,0x52,0x62,0xC2,
0x00,0x00,
```

```
};
```

```
uchar code jing1[]={/*-- 文字: 晶 --*/
```

```
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
```

```
0x00,0x00,0x00,0x00,0x7F,0x49,0x49,0x49,0x49,0x49,0x7F,0x00,0x00,0x00,
0x00,0x00,
```

```
0x00,0xFF,0x49,0x49,0x49,0x49,0xFF,0x00,0xFF,0x49,0x49,0x49,0x49,0xFF,
0x00,0x00,
```

```
};
```

```
uchar code ke1[]={/*-- 文字: 科 --*/
```

```
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
```

```
0x24,0x24,0xA4,0xFE,0xA3,0x22,0x00,0x22,0xCC,0x00,0x00,0xFF,0x00,0x00,
0x00,0x00,
```

```
0x08,0x06,0x01,0xFF,0x00,0x01,0x04,0x04,0x04,0x04,0x04,0xFF,0x02,0x02,
0x02,0x00,
```

```
};
```

```
uchar code ji1[]={/*-- 文字: 技 --*/
```

```
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
```

```
0x10,0x10,0x10,0xFF,0x10,0x90,0x08,0x88,0x88,0x88,0xFF,0x88,0x88,0x88,
0x08,0x00,
```

```
0x04,0x44,0x82,0x7F,0x01,0x80,0x80,0x40,0x43,0x2C,0x10,0x28,0x46,0x81,
0x80,0x00,
```

```
};
```

```
uchar code hui2[]={/*-- 文字: 汇 --*/
```

```
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
```

```
0x10,0x60,0x02,0x0C,0xC0,0x00,0xFE,0x02,0x02,0x02,0x02,0x02,0x02,0x02,
0x02,0x00,
```

```
0x04,0x04,0x7C,0x03,0x00,0x00,0x7F,0x40,0x40,0x40,0x40,0x40,0x40,0x40,
```

```

0x40,0x00,
};
uchar code ju2[]={/*-- 文字: 聚 --*/
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
0x40,0x41,0x7F,0x55,0x55,0x55,0xFF,0x21,0x20,0x42,0x2A,0x12,0x2A,0x46,
0x00,0x00,
0x80,0x92,0x92,0x4A,0x46,0x22,0x12,0xFE,0x09,0x11,0x21,0x51,0x49,0x84,
0x80,0x00,
};
uchar code jiao2[]={/*-- 文字: 焦 --*/
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
0x40,0x20,0x10,0xFC,0x27,0x24,0x24,0x25,0xFE,0x24,0x24,0x24,0x24,0x04,
0x00,0x00,
0x80,0x60,0x00,0x1F,0x29,0xC9,0x09,0x09,0x2F,0xC9,0x09,0x09,0x29,0xC8,
0x00,0x00,
};
uchar code dian2[]={/*-- 文字: 点 --*/
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
0x00,0x00,0xC0,0x40,0x40,0x40,0x7F,0x48,0x48,0x48,0x48,0xC8,0x08,0x08,
0x00,0x00,
0x80,0x40,0x37,0x04,0x04,0x14,0x64,0x04,0x14,0x64,0x04,0x07,0x10,0xE0,
0x00,0x00,
};
uchar code jing2[]={/*-- 文字: 精 --*/
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
0x44,0x58,0xC0,0xFF,0x50,0x4C,0x00,0x44,0x54,0x54,0x7F,0x54,0x54,0x54,
0x44,0x00,
0x08,0x06,0x01,0xFF,0x01,0x06,0x00,0x00,0xFF,0x15,0x15,0x55,0x95,0x7F,
0x00,0x00,
};
uchar code pin2[]={/*-- 文字: 品 --*/
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
0x00,0x00,0x00,0x7E,0x42,0x42,0x42,0x42,0x42,0x42,0x42,0x7E,0x00,0x00,
0x00,0x00,
0x00,0xFE,0x42,0x42,0x42,0xFE,0x00,0x00,0x00,0xFE,0x42,0x42,0x42,0xFE,
0x00,0x00,
};
uchar code zi2[]={/*-- 文字: 至 --*/
/*-- 宋体12; 此字体下对应的点阵为: 宽x高=16x16 --*/
0x00,0x02,0x42,0x62,0x52,0x4A,0x46,0x42,0x42,0x42,0x52,0x62,0xC2,0x02,
0x00,0x00,
0x40,0x40,0x44,0x44,0x44,0x44,0x44,0x7F,0x44,0x44,0x44,0x44,0x44,0x40,
0x40,0x00,
};

```

```

uchar code shang2[]={/*-- 文字： 上 --*/
/*-- 宋体12； 此字体下对应的点阵为： 宽x高=16x16 --*/
0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x40,0x40,0x40,0x40,0x40,0x40,0x00,
0x00,0x00,
0x40,0x40,0x40,0x40,0x40,0x40,0x7F,0x40,0x40,0x40,0x40,0x40,0x40,
0x40,0x00,
};
//注意纵向取模，字节倒序
const uchar delay=250; //延时时间常数
static void Waitlms(void)//延迟1 ms
{
    uchar cnt=0;
    while (cnt<delay) cnt++;
}
//延迟n ms
void WaitNms(int n)
{
    uchar i;
    for(i=1;i<=n;i++)
        Waitlms();
}

/*判断是否为忙?*/
void Busy(void)
{
    uchar temp;
    CSA=0;
    CSB=0;
    RS=0;
    RW=1;
    P1=0xff;
    while(1)
    {
        E=1;
        temp=P1; //读状态字
        E=0;
        if ((temp&0x80)==0)
            break; //判断忙标志是否为0
    }
}

void wrcomL(uchar command) //写左半屏指令
{
    Busy();
}

```

```

    CSA=0;
    CSB=1;
    RW=0;
    RS=0;
    P1=command;
    E=1;
    E=0;

}

void wrcomR(uchar command) //写右半屏指令
{
    Busy();
    CSA=1;
    CSB=0;

    RW=0;
    RS=0;
    P1=command;
    E=1;
    E=0;
}

void wrdataL(uchar DATA) //写左半屏数据
{
    Busy();

    CSA=0;
    CSB=1;
    RW=0;
    RS=1;
    P1=DATA;
    E=1;
    E=0;
}

void wrdataR(uchar DATA) //写右半屏数据
{
    Busy();

    CSA=1;
    CSB=0;
    RW=0;
    RS=1;
    P1=DATA;
}

```

```
E=1;
E=0;
```

```
}
```

```
void dispsameone(uchar k)//把一个字节内容填满全屏
```

```
{
    uchar i;
    uchar j;
    wrcomL(0xc0); //设置C0为首行
    wrcomL(0xb8); //设置第一页
    wrcomL(0x40); //设置第一列

    wrcomR(0xc0); //设置C0为首行
    wrcomR(0xb8); //设置第一页
    wrcomR(0x40); //设置第一列
    for(j=0; j<8; j++) //再写下一行
    {wrcomR(j+0xB8);
    wrcomL(j+0xB8);
    for(i=0; i<64; i++) //写满一行
    {
        wrdataL(k); //指针自动加一
        wrdataR(k);
    }
    }
}
```

```
void dispsametow(uchar k,q)//把两个紧靠的字节内容填满全屏
```

```
{
    uchar i;
    uchar j;
    wrcomL(0xc0);
    wrcomL(0xb8);
    wrcomL(0x40);

    wrcomR(0xc0);
    wrcomR(0xb8);
    wrcomR(0x40);
    for(j=0; j<8; j++) //再写下一行
    {wrcomR(j+0xB8);
    wrcomL(j+0xB8);
    for(i=0; i<32; i++) //写满一行
    {
        wrdataL(k); //指针自动加一
```

```
wrdataL(q); // 指针自动加一
wrdataR(k);
wrdataR(q);
}
}
}
```

```
void display_string_8x16(uchar hh, uint page, uint column, uchar *text)
{
```

```
uint i=0, j, k, n;
```

```
while(text[i]>0x00)
```

```
{
```

```
if((text[i]>=0x20)&&(text[i]<=0x7e))
```

```
{
```

```
j=text[i]-0x20;
```

```
for(n=0; n<2; n++)
```

```
{
```

```
wrcomL(0xc0); wrcomR(0xc0);
```

```
wrcomL(0xb8+page+n); wrcomR(0xb8+page+n);
```

```
if(column<64)
```

```
{
```

```
wrcomL(0x40+column);
```

```
for(k=0; k<8; k++)
```

```
if(hh==0)
```

```
{
```

```
wrdataL(ascii_table_8x16[j][k+8*n]);
```

```
}
```

```
else
```

```
{
```

```
wrdataL(~(ascii_table_8x16[j][k+8*n]));
```

```
}
```

```
}
```

```
}
```

```
else
```

```
{
```

```
wrcomR(0x40+(column-64));
```

```
for(k=0; k<8; k++)
```

```
if(hh==0)
```

```
{wrdataR(ascii_table_8x16[j][k+8*n]);
```

```
}
```

```
}
```

```
else
```

```
{wrdataR(~(ascii_table_8x16[j][k+8*n]));
```

```

    }
    }
    }
    i++;
    column+=8;
}
else
i++;
}
}

```

```

void display_string_8x16_t(uchar hh,uint page,uint column,uchar text)
{
    uint j,k,n;
    j=text+16;
    for(n=0;n<2;n++)
    {
        wrcomL(0xc0);wrcomR(0xc0);
        wrcomL(0xb8+page+n);wrcomR(0xb8+page+n);
        if(column<64)
        {
            wrcomL(0x40+column);
            for(k=0;k<8;k++)
            if(hh==0)
            {
                wrdataL(ascii_table_8x16[j][k+8*n]);
            }
            else
            {
                wrdataL(~(ascii_table_8x16[j][k+8*n]));
            }
        }
        else
        {
            wrcomR(0x40+(column-64));
            for(k=0;k<8;k++)
            if(hh==0)
            {wrdataR(ascii_table_8x16[j][k+8*n]);
            }
            else
            {wrdataR(~(ascii_table_8x16[j][k+8*n]));
            }
        }
    }
}

```



```

    }

}

void display_string_5x8(uint page,uint column,uchar *text)
{
uint i=0,j,k;
while(text[i]>0x00)
{
if((text[i]>=0x20)&&(text[i]<0x7e))
{
j=text[i]-0x20;
wrcmL(0xc0);wrcmR(0xc0);
wrcmL(0xb8+page);wrcmR(0xb8+page);
if(column<64)
{
wrcmL(0x40+column);
for(k=0;k<5;k++)
{wrdataL(ascii_table_5x8[j][k]);
}
}
else
{
wrcmR(0x40+(column-64));
for(k=0;k<5;k++)
{wrdataR(ascii_table_5x8[j][k]);
}
}
i++;
column+=6;
}
else
i++;
}
}

//显示128x64 点阵边框
void display_bk()
{
uint i,j;
//左框
for(j=0;j<8;j++)
{

```

```

    wrcomL(0xb8+j);
    wrcomL(0x40+0);
    wrdataL(0xff);
    wrdataL(0xff);
}
//右框
for(j=0; j<8; j++)
{
    wrcomR(0xb8+j);
    wrcomR(0x40+62);
    wrdataR(0xff);
    wrdataR(0xff);
}
//上框
wrcomL(0xb8+0); wrcomR(0xb8+0);
wrcomL(0x40+2); wrcomR(0x40+0);
for(i=0; i<62; i++)
{
    wrdataL(0x03);
    wrdataR(0x03);
}
//下框
wrcomL(0xb8+7); wrcomR(0xb8+7);
wrcomL(0x40+2); wrcomR(0x40+0);
for(i=0; i<62; i++)
{
    wrdataL(0xC0);
    wrdataR(0xC0);
}
}

//显示16x16 点阵图像、汉字、生僻字或16x16 点阵的其他图标
void display_graphic_16x16(uchar hh, uchar page, uchar column, uchar *dp)
{
    uint i, j;
    for(j=0; j<2; j++)
    {
        wrcomL(0xC0); wrcomR(0xC0); //首行
        wrcomL(0xb8+page+j); wrcomR(0xb8+page+j);
        if(column<64)
        {
            wrcomL(0x40+column);
            for(i=0; i<16; i++)
            {

```

```

        if(hh==0) wrdataL(*dp);
        else wrdataL(~(*dp)); //写数据到LCD,每写完一个8 位的数据后
列地址自动加1
        dp++;
    }
}
else
{
    wrcomR(0x40+(column-64));
    for (i=0;i<16;i++)
    {
        if(hh==0) wrdataR(*dp);
        else wrdataR(~(*dp)); //写数据到LCD,每写完一个8 位的数据后
列地址自动加1
        dp++;
    }
}
}
}

```

```

void lcdint(void)
{
    wrcomR(0x3e); //显示关
    wrcomR(0x3f); //显示开
    wrcomL(0x3e);
    wrcomL(0x3f);
    wrcomL(0xC0); //首行
    wrcomR(0xC0); //首行
}

```

```

void ini_int1(void)
{
    EA=1;
    EX0=1; //允许外部INT0的中断
    IT0=1; // 允许中断
}

```

```

int scankey1() interrupt 0 using 3 //使用外部中断1,寄存器组3
{
    while(P3^2==0) {for(;;);}
    IE1=0; //中断标志清零
}
//~~~~~程序从这里开始
void main(void)

```

```
{
ini_int1();//开中断
for(m1=0;m1<50;m1++)
{
    lcdint();
    dispsameone(0x00);//清屏
    display_string_8x16(0,0,0,"0123456789ABCDEF");
    display_string_8x16(0,2,0,"HUIJINGKEJI12864");
    display_string_5x8(4,4,"0123456789ABCDEFGHJI");
    display_string_5x8(5,4,"**TEL:0755-23146001*");
    display_string_5x8(6,4,"**FAX:0755-23146002*");
    display_string_5x8(7,4,".www.huijinglcm.com.");
    WaitNms(250);
    WaitNms(150);
    //~~~~~1,(5*8和8*16字符显示)

    dispsameone(0x00);//清屏
    display_graphic_16x16(0,2,32,hui1);
    display_graphic_16x16(0,2,48,jing1);
    display_graphic_16x16(0,2,64,ke1);
    display_graphic_16x16(0,2,80,ji1);
    display_string_8x16(0,4,40,"128*64");
    display_bk();
    WaitNms(250);
    WaitNms(150);
    //~~~~~2,(自编边框/16*16汉字
显示 )

    dispsameone(0x00);//清屏
    dispsameone(0xFF);//清屏
    display_graphic_16x16(1,2,32,hui1);
    display_graphic_16x16(1,2,48,jing1);
    display_graphic_16x16(1,2,64,ke1);
    display_graphic_16x16(1,2,80,ji1);

    display_graphic_16x16(1,0,2,hui2);
    display_graphic_16x16(1,2,2,ju2);
    display_graphic_16x16(1,4,2,jiao2);
    display_graphic_16x16(1,6,2,dian2);

    display_graphic_16x16(1,0,112,jing2);
    display_graphic_16x16(1,2,112,pin2);
    display_graphic_16x16(1,4,112,zi2);
    display_graphic_16x16(1,6,112,shang2);
```



```
{
    display_string_8x16_t(0,1,48,z1);
    for(d=0;d<6;d++)
    {
        display_string_8x16_t(0,1,56,10);
        display_string_8x16_t(0,1,64,d);
        for(d1=0;d1<10;d1++)
        {
            display_string_8x16_t(0,1,72,d1);
            for(s=0;s<6;s++)
            {
                display_string_8x16_t(0,1,80,10);
                display_string_8x16_t(0,1,88,s);
                for(s1=0;s1<10;s1++)
                {
                    display_string_8x16_t(0,1,96,s1);
                    WaitNms(5);/////延时 x ms
                    display_string_8x16_t(0,1,104,10);
                    for(s10=0;s10<10;s10++)
                    {
                        display_string_8x16_t(0,1,112,s10);
                        WaitNms(5);/////延时 x ms
                        for(s100=0;s100<10;s100++)
                        {
                            display_string_8x16_t(0,1,120,s100);
                            WaitNms(5);/////延时 x ms
                        }
                    }
                }
            }
        }
    }
}

}

}

}
```

uchar code ascii_table_8x16[95][16]={

/*-- 文字: --*/
/*-- Comic Sans MS12: 此字体下对应的点阵为：宽x 高=8x16 --*/

```

0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: ! --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0xF8,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x33,0x30,0x00,
0x00,0x00,
/*-- 文字: " --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x10,0x0C,0x06,0x10,0x0C,0x06,0x00,0x00,0x00,0x00,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: # --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x40,0xC0,0x78,0x40,0xC0,0x78,0x40,0x00,0x04,0x3F,0x04,0x04,0x3F,0x04,
0x04,0x00,
/*-- 文字: $ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x70,0x88,0xFC,0x08,0x30,0x00,0x00,0x00,0x18,0x20,0xFF,0x21,0x1E,
0x00,0x00,
/*-- 文字: % --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0xF0,0x08,0xF0,0x00,0xE0,0x18,0x00,0x00,0x00,0x21,0x1C,0x03,0x1E,0x21,
0x1E,0x00,
/*-- 文字: & --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0xF0,0x08,0x88,0x70,0x00,0x00,0x00,0x1E,0x21,0x23,0x24,0x19,0x27,
0x21,0x10,
/*-- 文字: ' --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x10,0x16,0x0E,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: ( --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0xE0,0x18,0x04,0x02,0x00,0x00,0x00,0x00,0x07,0x18,0x20,
0x40,0x00,
/*-- 文字: ) --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x02,0x04,0x18,0xE0,0x00,0x00,0x00,0x00,0x40,0x20,0x18,0x07,0x00,
0x00,0x00,
/*-- 文字: * --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x40,0x40,0x80,0xF0,0x80,0x40,0x40,0x00,0x02,0x02,0x01,0x0F,0x01,0x02,
0x02,0x00,
/*-- 文字: + --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

```

0x00,0x00,0x00,0xF0,0x00,0x00,0x00,0x00,0x01,0x01,0x01,0x1F,0x01,0x01,
0x01,0x00,
/*-- 文字: , --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x80,0xB0,0x70,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: - --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x01,0x01,0x01,0x01,0x01,
0x01,0x01,
/*-- 文字: . --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x30,0x30,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: / --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0x80,0x60,0x18,0x04,0x00,0x60,0x18,0x06,0x01,0x00,
0x00,0x00,
/*-- 文字: 0 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0xE0,0x10,0x08,0x08,0x10,0xE0,0x00,0x00,0x0F,0x10,0x20,0x20,0x10,
0x0F,0x00,
/*-- 文字: 1 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x10,0x10,0xF8,0x00,0x00,0x00,0x00,0x00,0x20,0x20,0x3F,0x20,0x20,
0x00,0x00,
/*-- 文字: 2 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x70,0x08,0x08,0x08,0x88,0x70,0x00,0x00,0x30,0x28,0x24,0x22,0x21,
0x30,0x00,
/*-- 文字: 3 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x30,0x08,0x88,0x88,0x48,0x30,0x00,0x00,0x18,0x20,0x20,0x20,0x11,
0x0E,0x00,
/*-- 文字: 4 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0xC0,0x20,0x10,0xF8,0x00,0x00,0x00,0x07,0x04,0x24,0x24,0x3F,
0x24,0x00,
/*-- 文字: 5 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0xF8,0x08,0x88,0x88,0x08,0x08,0x00,0x00,0x19,0x21,0x20,0x20,0x11,
0x0E,0x00,
/*-- 文字: 6 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```



```

0x00,0xE0,0x10,0x88,0x88,0x18,0x00,0x00,0x00,0x0F,0x11,0x20,0x20,0x11,
0x0E,0x00,
/*-- 文字: 7 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x38,0x08,0x08,0xC8,0x38,0x08,0x00,0x00,0x00,0x00,0x3F,0x00,0x00,
0x00,0x00,
/*-- 文字: 8 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x70,0x88,0x08,0x08,0x88,0x70,0x00,0x00,0x1C,0x22,0x21,0x21,0x22,
0x1C,0x00,
/*-- 文字: 9 --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0xE0,0x10,0x08,0x08,0x10,0xE0,0x00,0x00,0x00,0x31,0x22,0x22,0x11,
0x0F,0x00,
/*-- 文字: : --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0xC0,0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x30,0x30,0x00,
0x00,0x00,
/*-- 文字: ; --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x80,0x00,0x00,0x00,0x00,0x00,0x00,0x80,0x60,0x00,0x00,
0x00,0x00,
/*-- 文字: < --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x80,0x40,0x20,0x10,0x08,0x00,0x00,0x01,0x02,0x04,0x08,0x10,
0x20,0x00,
/*-- 文字: = --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x40,0x40,0x40,0x40,0x40,0x40,0x40,0x00,0x04,0x04,0x04,0x04,0x04,0x04,
0x04,0x00,
/*-- 文字: > --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x08,0x10,0x20,0x40,0x80,0x00,0x00,0x00,0x20,0x10,0x08,0x04,0x02,
0x01,0x00,
/*-- 文字: ? --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x70,0x48,0x08,0x08,0x08,0xF0,0x00,0x00,0x00,0x00,0x30,0x36,0x01,
0x00,0x00,
/*-- 文字: @ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0xC0,0x30,0xC8,0x28,0xE8,0x10,0xE0,0x00,0x07,0x18,0x27,0x24,0x23,0x14,
0x0B,0x00,
/*-- 文字: A --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

0x00,0x00,0xC0,0x38,0xE0,0x00,0x00,0x00,0x20,0x3C,0x23,0x02,0x02,0x27,
0x38,0x20,

/*-- 文字: B --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x08,0xF8,0x88,0x88,0x88,0x70,0x00,0x00,0x20,0x3F,0x20,0x20,0x20,0x11,
0x0E,0x00,

/*-- 文字: C --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0xC0,0x30,0x08,0x08,0x08,0x08,0x38,0x00,0x07,0x18,0x20,0x20,0x20,0x10,
0x08,0x00,

/*-- 文字: D --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x08,0xF8,0x08,0x08,0x08,0x10,0xE0,0x00,0x20,0x3F,0x20,0x20,0x20,0x10,
0x0F,0x00,

/*-- 文字: E --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x08,0xF8,0x88,0x88,0xE8,0x08,0x10,0x00,0x20,0x3F,0x20,0x20,0x23,0x20,
0x18,0x00,

/*-- 文字: F --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x08,0xF8,0x88,0x88,0xE8,0x08,0x10,0x00,0x20,0x3F,0x20,0x00,0x03,0x00,
0x00,0x00,

/*-- 文字: G --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0xC0,0x30,0x08,0x08,0x08,0x38,0x00,0x00,0x07,0x18,0x20,0x20,0x22,0x1E,
0x02,0x00,

/*-- 文字: H --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x08,0xF8,0x08,0x00,0x00,0x08,0xF8,0x08,0x20,0x3F,0x21,0x01,0x01,0x21,
0x3F,0x20,

/*-- 文字: I --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x00,0x08,0x08,0xF8,0x08,0x08,0x00,0x00,0x00,0x20,0x20,0x3F,0x20,0x20,
0x00,0x00,

/*-- 文字: J --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x00,0x00,0x08,0x08,0xF8,0x08,0x08,0x00,0xC0,0x80,0x80,0x80,0x7F,0x00,
0x00,0x00,

/*-- 文字: K --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

0x08,0xF8,0x88,0xC0,0x28,0x18,0x08,0x00,0x20,0x3F,0x20,0x01,0x26,0x38,
0x20,0x00,

/*-- 文字: L --*/

/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

0x08,0xF8,0x08,0x00,0x00,0x00,0x00,0x00,0x20,0x3F,0x20,0x20,0x20,0x20,
0x30,0x00,
/*-- 文字: M --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0xF8,0x00,0xF8,0xF8,0x08,0x00,0x20,0x3F,0x00,0x3F,0x00,0x3F,
0x20,0x00,
/*-- 文字: N --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0x30,0xC0,0x00,0x08,0xF8,0x08,0x20,0x3F,0x20,0x00,0x07,0x18,
0x3F,0x00,
/*-- 文字: O --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0xE0,0x10,0x08,0x08,0x08,0x10,0xE0,0x00,0x0F,0x10,0x20,0x20,0x20,0x10,
0x0F,0x00,
/*-- 文字: P --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0x08,0x08,0x08,0x08,0xF0,0x00,0x20,0x3F,0x21,0x01,0x01,0x01,
0x00,0x00,
/*-- 文字: Q --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0xE0,0x10,0x08,0x08,0x08,0x10,0xE0,0x00,0x0F,0x18,0x24,0x24,0x38,0x50,
0x4F,0x00,
/*-- 文字: R --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0x88,0x88,0x88,0x88,0x70,0x00,0x20,0x3F,0x20,0x00,0x03,0x0C,
0x30,0x20,
/*-- 文字: S --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x70,0x88,0x08,0x08,0x08,0x38,0x00,0x00,0x38,0x20,0x21,0x21,0x22,
0x1C,0x00,
/*-- 文字: T --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x18,0x08,0x08,0xF8,0x08,0x08,0x18,0x00,0x00,0x00,0x20,0x3F,0x20,0x00,
0x00,0x00,
/*-- 文字: U --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0x08,0x00,0x00,0x08,0xF8,0x08,0x00,0x1F,0x20,0x20,0x20,0x20,
0x1F,0x00,
/*-- 文字: V --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0x78,0x88,0x00,0x00,0xC8,0x38,0x08,0x00,0x00,0x07,0x38,0x0E,0x01,
0x00,0x00,
/*-- 文字: W --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

```

0xF8,0x08,0x00,0xF8,0x00,0x08,0xF8,0x00,0x03,0x3C,0x07,0x00,0x07,0x3C,
0x03,0x00,
/*-- 文字: X --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0x18,0x68,0x80,0x80,0x68,0x18,0x08,0x20,0x30,0x2C,0x03,0x03,0x2C,
0x30,0x20,
/*-- 文字: Y --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0x38,0xC8,0x00,0xC8,0x38,0x08,0x00,0x00,0x00,0x20,0x3F,0x20,0x00,
0x00,0x00,
/*-- 文字: Z --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x10,0x08,0x08,0x08,0xC8,0x38,0x08,0x00,0x20,0x38,0x26,0x21,0x20,0x20,
0x18,0x00,
/*-- 文字: [ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0xFE,0x02,0x02,0x02,0x00,0x00,0x00,0x00,0x7F,0x40,0x40,
0x40,0x00,
/*-- 文字: \ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x0C,0x30,0xC0,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x01,0x06,0x38,
0xC0,0x00,
/*-- 文字: ] --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x02,0x02,0x02,0xFE,0x00,0x00,0x00,0x00,0x40,0x40,0x40,0x7F,0x00,
0x00,0x00,
/*-- 文字: ^ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x04,0x02,0x02,0x02,0x04,0x00,0x00,0x00,0x00,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: _ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x80,0x80,0x80,0x80,0x80,0x80,
0x80,0x80,
/*-- 文字: ` --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x02,0x02,0x04,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,
0x00,0x00,
/*-- 文字: a --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x80,0x80,0x80,0x80,0x00,0x00,0x00,0x19,0x24,0x22,0x22,0x22,
0x3F,0x20,
/*-- 文字: b --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

```

0x08,0xF8,0x00,0x80,0x80,0x00,0x00,0x00,0x00,0x3F,0x11,0x20,0x20,0x11,
0x0E,0x00,
/*-- 文字: c --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x80,0x80,0x80,0x00,0x00,0x00,0x0E,0x11,0x20,0x20,0x20,
0x11,0x00,
/*-- 文字: d --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x80,0x80,0x88,0xF8,0x00,0x00,0x0E,0x11,0x20,0x20,0x10,
0x3F,0x20,
/*-- 文字: e --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x80,0x80,0x80,0x80,0x00,0x00,0x00,0x1F,0x22,0x22,0x22,0x22,
0x13,0x00,
/*-- 文字: f --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x80,0x80,0xF0,0x88,0x88,0x88,0x18,0x00,0x20,0x20,0x3F,0x20,0x20,
0x00,0x00,
/*-- 文字: g --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x80,0x80,0x80,0x80,0x80,0x00,0x00,0x6B,0x94,0x94,0x94,0x93,
0x60,0x00,
/*-- 文字: h --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0x00,0x80,0x80,0x80,0x00,0x00,0x20,0x3F,0x21,0x00,0x00,0x20,
0x3F,0x20,
/*-- 文字: i --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x80,0x98,0x98,0x00,0x00,0x00,0x00,0x00,0x20,0x20,0x3F,0x20,0x20,
0x00,0x00,
/*-- 文字: j --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x80,0x98,0x98,0x00,0x00,0x00,0xC0,0x80,0x80,0x80,0x7F,
0x00,0x00,
/*-- 文字: k --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x08,0xF8,0x00,0x00,0x80,0x80,0x80,0x00,0x20,0x3F,0x24,0x02,0x2D,0x30,
0x20,0x00,
/*-- 文字: l --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x08,0x08,0xF8,0x00,0x00,0x00,0x00,0x00,0x20,0x20,0x3F,0x20,0x20,
0x00,0x00,
/*-- 文字: m --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

```

0x80,0x80,0x80,0x80,0x80,0x80,0x80,0x00,0x20,0x3F,0x20,0x00,0x3F,0x20,
0x00,0x3F,
/*-- 文字: n --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x00,0x80,0x80,0x80,0x00,0x00,0x20,0x3F,0x21,0x00,0x00,0x20,
0x3F,0x20,
/*-- 文字: o --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x80,0x80,0x80,0x80,0x00,0x00,0x00,0x1F,0x20,0x20,0x20,0x20,
0x1F,0x00,
/*-- 文字: p --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x00,0x80,0x80,0x00,0x00,0x00,0x80,0xFF,0xA1,0x20,0x20,0x11,
0x0E,0x00,
/*-- 文字: q --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x80,0x80,0x80,0x80,0x00,0x00,0x0E,0x11,0x20,0x20,0xA0,
0xFF,0x80,
/*-- 文字: r --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x80,0x00,0x80,0x80,0x80,0x00,0x20,0x20,0x3F,0x21,0x20,0x00,
0x01,0x00,
/*-- 文字: s --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x80,0x80,0x80,0x80,0x80,0x00,0x00,0x33,0x24,0x24,0x24,0x24,
0x19,0x00,
/*-- 文字: t --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x80,0x80,0xE0,0x80,0x80,0x00,0x00,0x00,0x00,0x00,0x1F,0x20,0x20,
0x00,0x00,
/*-- 文字: u --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x00,0x00,0x00,0x80,0x80,0x00,0x00,0x1F,0x20,0x20,0x20,0x10,
0x3F,0x20,
/*-- 文字: v --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x80,0x00,0x00,0x80,0x80,0x80,0x00,0x01,0x0E,0x30,0x08,0x06,
0x01,0x00,
/*-- 文字: w --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x00,0x80,0x00,0x80,0x80,0x80,0x0F,0x30,0x0C,0x03,0x0C,0x30,
0x0F,0x00,
/*-- 文字: x --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/

```

```

0x00,0x80,0x80,0x00,0x80,0x80,0x80,0x00,0x00,0x20,0x31,0x2E,0x0E,0x31,
0x20,0x00,
/*-- 文字: y --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x80,0x80,0x80,0x00,0x00,0x80,0x80,0x80,0x80,0x81,0x8E,0x70,0x18,0x06,
0x01,0x00,
/*-- 文字: z --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x80,0x80,0x80,0x80,0x80,0x80,0x00,0x00,0x21,0x30,0x2C,0x22,0x21,
0x30,0x00,
/*-- 文字: { --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0x80,0x7C,0x02,0x02,0x00,0x00,0x00,0x00,0x00,0x3F,
0x40,0x40,
/*-- 文字: | --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x00,0x00,0x00,0xFF,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0xFF,0x00,
0x00,0x00,
/*-- 文字: } --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x02,0x02,0x7C,0x80,0x00,0x00,0x00,0x00,0x40,0x40,0x3F,0x00,0x00,
0x00,0x00,
/*-- 文字: ~ --*/
/*-- Comic Sans MS12; 此字体下对应的点阵为: 宽x 高=8x16 --*/
0x00,0x06,0x01,0x01,0x02,0x02,0x04,0x04,0x00,0x00,0x00,0x00,0x00,0x00,
0x00,0x00
};

```

```

uchar code ascii_table_5x8[95][5]={
/*二维数组 行 列 */
/*全体ASCII 列表:5x8 点阵*/
0x00,0x00,0x00,0x00,0x00,/*space*/
0x00,0x00,0x4f,0x00,0x00,//!
0x00,0x07,0x00,0x07,0x00,//"
0x14,0x7f,0x14,0x7f,0x14,//#
0x24,0x2a,0x7f,0x2a,0x12,//$
0x23,0x13,0x08,0x64,0x62,/%
0x36,0x49,0x55,0x22,0x50,/&
0x00,0x05,0x07,0x00,0x00,/[
0x00,0x1c,0x22,0x41,0x00,/(
0x00,0x41,0x22,0x1c,0x00,/(
0x14,0x08,0x3e,0x08,0x14,/*
0x08,0x08,0x3e,0x08,0x08,/+
0x00,0x50,0x30,0x00,0x00,/,

```

0x08,0x08,0x08,0x08,0x08, //-
 0x00,0x60,0x60,0x00,0x00, //
 0x20,0x10,0x08,0x04,0x02, ///
 0x3e,0x51,0x49,0x45,0x3e, //0
 0x00,0x42,0x7f,0x40,0x00, //1
 0x42,0x61,0x51,0x49,0x46, //2
 0x21,0x41,0x45,0x4b,0x31, //3
 0x18,0x14,0x12,0x7f,0x10, //4
 0x27,0x45,0x45,0x45,0x39, //5
 0x3c,0x4a,0x49,0x49,0x30, //6
 0x01,0x71,0x09,0x05,0x03, //7
 0x36,0x49,0x49,0x49,0x36, //8
 0x06,0x49,0x49,0x29,0x1e, //9
 0x00,0x36,0x36,0x00,0x00, //:
 0x00,0x56,0x36,0x00,0x00, //;
 0x08,0x14,0x22,0x41,0x00, ///
 0x14,0x14,0x14,0x14,0x14, //=
 0x00,0x41,0x22,0x14,0x08, ///
 0x02,0x01,0x51,0x09,0x06, ///
 0x32,0x49,0x79,0x41,0x3e, ///
 0x7e,0x11,0x11,0x11,0x7e, ///
 0x7f,0x49,0x49,0x49,0x36, ///
 0x3e,0x41,0x41,0x41,0x22, ///
 0x7f,0x41,0x41,0x22,0x1c, ///
 0x7f,0x49,0x49,0x49,0x41, ///
 0x7f,0x09,0x09,0x09,0x01, ///
 0x3e,0x41,0x49,0x49,0x7a, ///
 0x7f,0x08,0x08,0x08,0x7f, ///
 0x00,0x41,0x7f,0x41,0x00, ///
 0x20,0x40,0x41,0x3f,0x01, ///
 0x7f,0x08,0x14,0x22,0x41, ///
 0x7f,0x40,0x40,0x40,0x40, ///
 0x7f,0x02,0x0c,0x02,0x7f, ///
 0x7f,0x04,0x08,0x10,0x7f, ///
 0x3e,0x41,0x41,0x41,0x3e, ///
 0x7f,0x09,0x09,0x09,0x06, ///
 0x3e,0x41,0x51,0x21,0x5e, ///
 0x7f,0x09,0x19,0x29,0x46, ///
 0x46,0x49,0x49,0x49,0x31, ///
 0x01,0x01,0x7f,0x01,0x01, ///
 0x3f,0x40,0x40,0x40,0x3f, ///
 0x1f,0x20,0x40,0x20,0x1f, ///
 0x3f,0x40,0x38,0x40,0x3f, ///
 0x63,0x14,0x08,0x14,0x63, ///


```

0x07,0x08,0x70,0x08,0x07,>//Y
0x61,0x51,0x49,0x45,0x43,>//Z
0x00,0x7f,0x41,0x41,0x00,//[
0x02,0x04,0x08,0x10,0x20,>//斜杠
0x00,0x41,0x41,0x7f,0x00,//]
0x04,0x02,0x01,0x02,0x04,>//^
0x40,0x40,0x40,0x40,0x40,>//_
0x01,0x02,0x04,0x00,0x00,>//`
0x20,0x54,0x54,0x54,0x78,>//a
0x7f,0x48,0x48,0x48,0x30,>//b
0x38,0x44,0x44,0x44,0x44,>//c
0x30,0x48,0x48,0x48,0x7f,>//d
0x38,0x54,0x54,0x54,0x58,>//e
0x00,0x08,0x7e,0x09,0x02,>//f
0x48,0x54,0x54,0x54,0x3c,>//g
0x7f,0x08,0x08,0x08,0x70,>//h
0x00,0x00,0x7a,0x00,0x00,>//i
0x20,0x40,0x40,0x3d,0x00,>//j
0x7f,0x20,0x28,0x44,0x00,>//k
0x00,0x41,0x7f,0x40,0x00,>//l
0x7c,0x04,0x38,0x04,0x7c,>//m
0x7c,0x08,0x04,0x04,0x78,>//n
0x38,0x44,0x44,0x44,0x38,>//o
0x7c,0x14,0x14,0x14,0x08,>//p
0x08,0x14,0x14,0x14,0x7c,>//q
0x7c,0x08,0x04,0x04,0x08,>//r
0x48,0x54,0x54,0x54,0x24,>//s
0x04,0x04,0x3f,0x44,0x24,>//t
0x3c,0x40,0x40,0x40,0x3c,>//u
0x1c,0x20,0x40,0x20,0x1c,>//v
0x3c,0x40,0x30,0x40,0x3c,>//w
0x44,0x28,0x10,0x28,0x44,>//x
0x04,0x48,0x30,0x08,0x04,>//y
0x44,0x64,0x54,0x4c,0x44,>//z
0x08,0x36,0x41,0x41,0x00,://{
0x00,0x00,0x77,0x00,0x00,>//|
0x00,0x41,0x41,0x36,0x08,//}
0x04,0x02,0x02,0x02,0x01,>//~
};
    
```

//-----完-----