

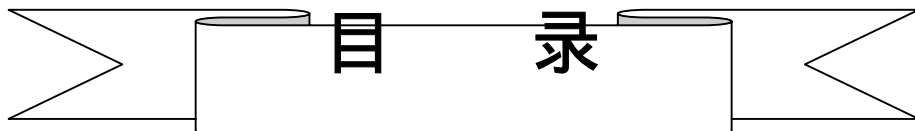
EDM16080-01

图形点阵式液晶显示模块 使用说明

大连东福彩色液晶显示器有限公司

Model No.:

Editor:



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1、使用范围

该检验标准适用于大连东福公司设计提供的标准液晶显示模块。如果在使用中出现了异常问题或没有列明的项目，建议同最近的供应商或本公司联系。

2、质量保证

如在此手册列明的正常条件下使用、储存该产品，公司将提供 12 个月的质量保证。

3、性能特点

3-1 . 性能：

显示方式：	〔 全透、正显 黄绿色 STN LCD
显示颜色：	
显示形式：	〔 显示点：深蓝色 背景：黄绿色
输入数据：	160(w) × 80(h) 全点阵
驱动路数：	来自 MPU 的 8 位并行数据接口
视 角：	1/80 Duty
背 光：	6 点
	EL,DRIVER BUILD IN

3-2 . 机械性能：

项 目	规 格	单 位
外形尺寸	125.0(W) × 73.0(H) × 11.0 Max.	Mm
显示点阵数	160(W) × 80 (H) Dots	—
视 域	89.0(W) × 47.5(H)	Mm
显示图形域	83.16(W) × 41.56H)	Mm
点间距	0.52(W) × 0.52(H)	Mm
点尺寸	0.48(W) × 0.48(H)	Mm
重 量	Approx. 120	G

3-3 . 极限参数：

项 目	符 号	最小值	最大值	单 位	注 释
电 源 电 压	逻辑	Vdd	2.6	6.0	V
	LCD 驱动	Vdd - Vee	10.8	11.2	V
输入电压	Vi	-0.5	VDD±0.5	V	
操作温度	Top	-30	70		
储存温度	Tstg	-40	80		
湿度	—	—	90	%RH	
背光驱动电压	VEL	—	110.0	V	

3-4. 电气特性：

3-4-1 电气参数

项 目		符 号	条 件	最小值	典型值	最大值	单 位
电源电压	逻辑	Vdd		2.8	3.00	3.2	V
	LCD 驱动	Vdd-Vee		—	11.0	—	
输入电压	高电平	Vih	Vdd=3.0±5%	2.6	—	Vdd	
	低电平	Vil		0	—	0.8	
频 率		Ffilm	Vdd=5V	—	75	—	Hz
功 耗	逻辑	Idd	Vdd=3.0V Vdd-Vee=11.0V	—	1.7	2.0	mA
	LCD 驱动	Iee	Ffilm=75Hz	—	—	—	
LCD 驱动电压 (推荐电压)		Vdd-Vee	Ta= -20 =0°, =0°	—	—	—	V
			Ta= 25 =0°, =0°	—	11.0	—	
			Ta= 60 =0°, =0°	—	—	—	

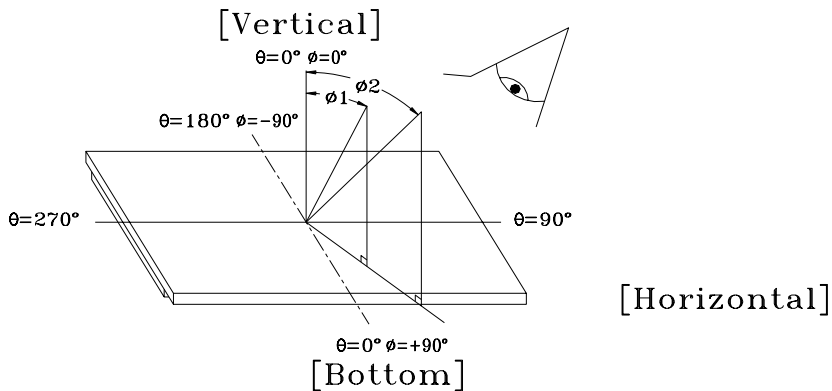
Note: <1> 驱动路数=1/80

<2> 所有点在静态条件

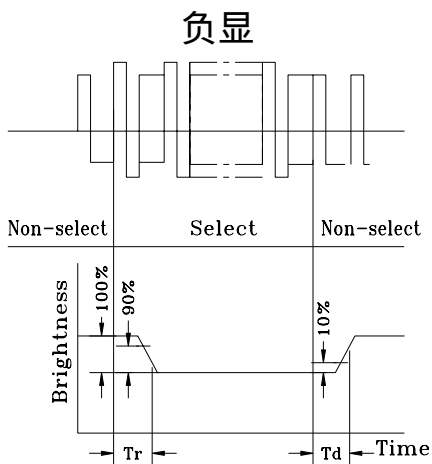
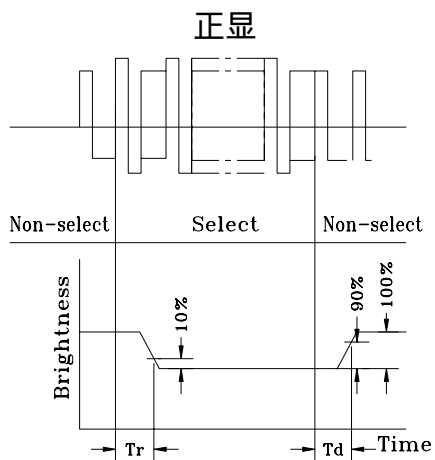
3-5. 光电特性

项 目		符号	温度	条件	最小值	典型值	最大值	单位	注释
LCD 驱动电压 (推荐电压)		VLCD	-20	=0°, =0°	—	—	—	V	1,2,5
			25		—	11.0	—		
			60		—	—	—		
响应 时间	上升时间	tr	-20	=0°, =0°	—	750	1100	Ms	1,3,5
			25		—	150	200		
	衰退时间	td	-20		—	1000	1500		
			25		—	150	200		
视 角			25	垂直	—	+50/-45	—	deg.	1,4,5
				水平	—	+55/-55	—		
对比度		K	25	=0°, =0°	2	—	5	—	1,5,6

注意：<1> 和 的定义 <2> 在此电压范围内能获得对比度大于 2(k 2)

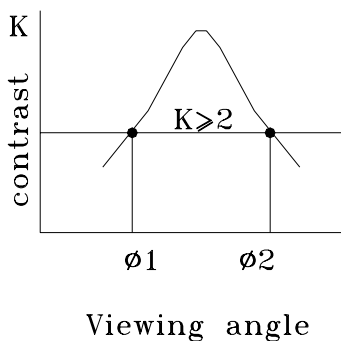


注意：<3> 响应时间波形定义

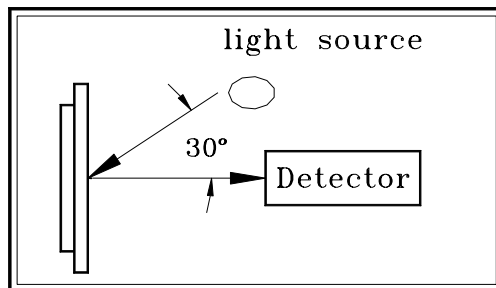


注意：<4> 视角定义

$$K = \frac{1}{1 - 2\cos\theta}$$

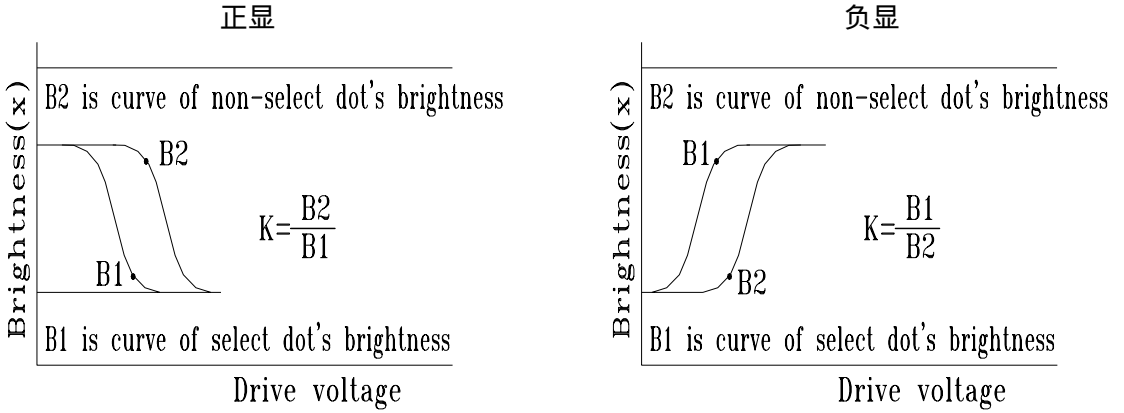


注意：<5> 光学测量系统温度控制室



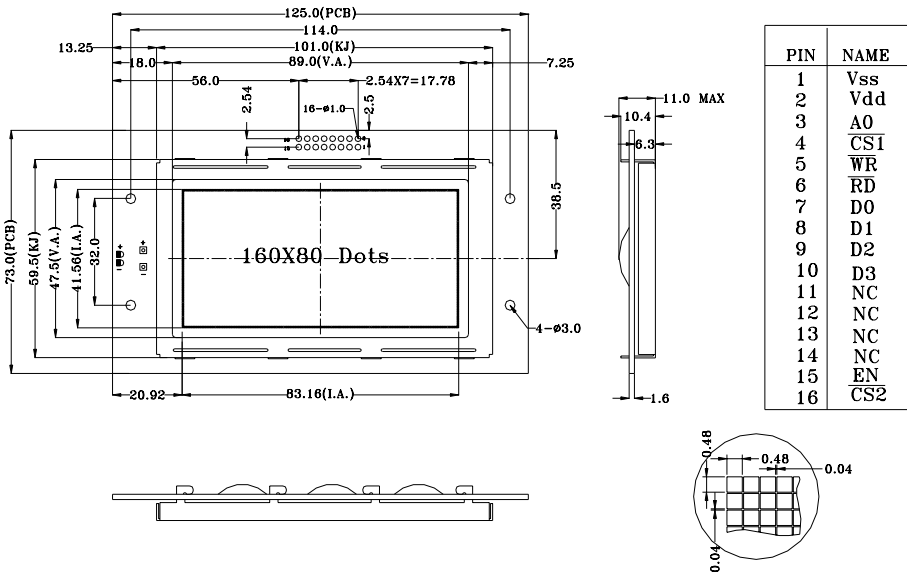
Measuring equipment: DMS
(Made in AUTRONIC)

注意：<6> 对比度定义(K)



对比度(K) = $\frac{\text{非选择点的亮度(B2)}}{\text{选择点的亮度(B1)}}$

4、外形图



5、I/O 接口特性

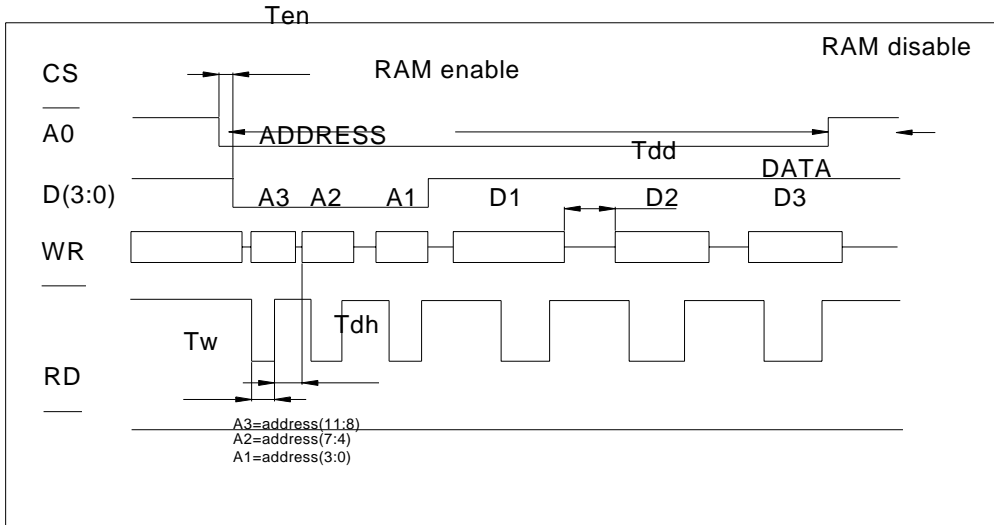
5-1. I/O 接口表：

管脚号	符号	功 能
1	Vss	接地
2	Vcc	电源电压
3	A0	显示数据.指令数据控制信号
4	/CS1	片选信号
5	/WR	写信号
6	/RD	读信号
7~10	D0~D3	数据线
11~14	NC	悬空
15	EN	读写控制信号
16	/CS2	片选信号

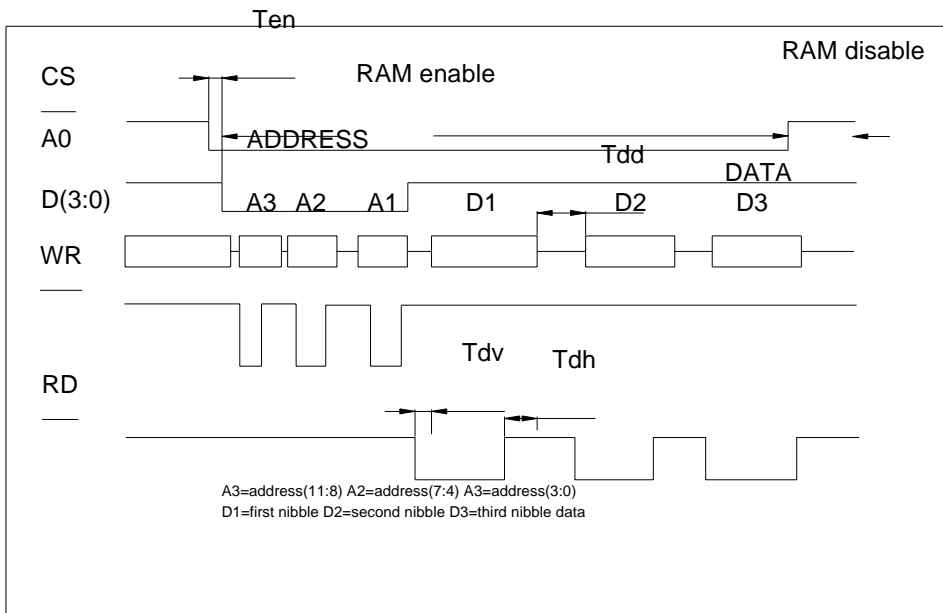
5-2 . 时序及时序图：

项目	符号	最小值	典型值	最大值	条件	单位
输入高电压	Vih	2.0				v
输入低电压	Vil			0.8		v
输出高电流	Ioh	100			Vdd=3v	μA
输出低电流	Iol	-100			Vdd=3v	μA
输入高电压	Iop		130	160	EN=0,MAIN=1	μA
		—	40	70	EN=0MAIN=0	μA
使能时间	Ten	30				μs
写入低脉冲时间	Tw	2				μs
数据保持时间	Tdh	500				μs
数据延时时间	Tdd	2				μs
数据有效时间	Tdv	1500				μs

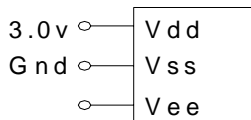
(a) 写时序图



(b) 读时序图



5-3. 电源连接



5-4. 电路图解

(图解参见 Fig.5-4) LCD 模块需逻辑电压 (Vdd) 和 LCD 驱动电压 (Vee)

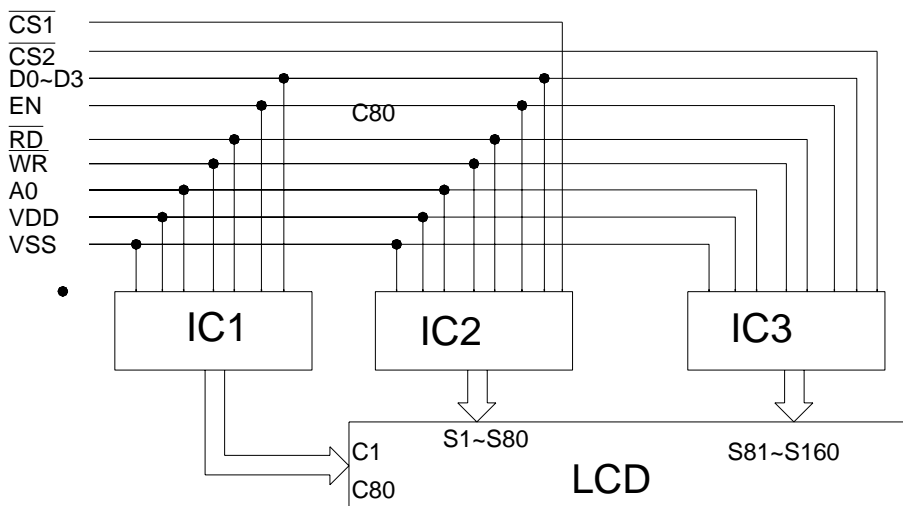


Fig.5-4

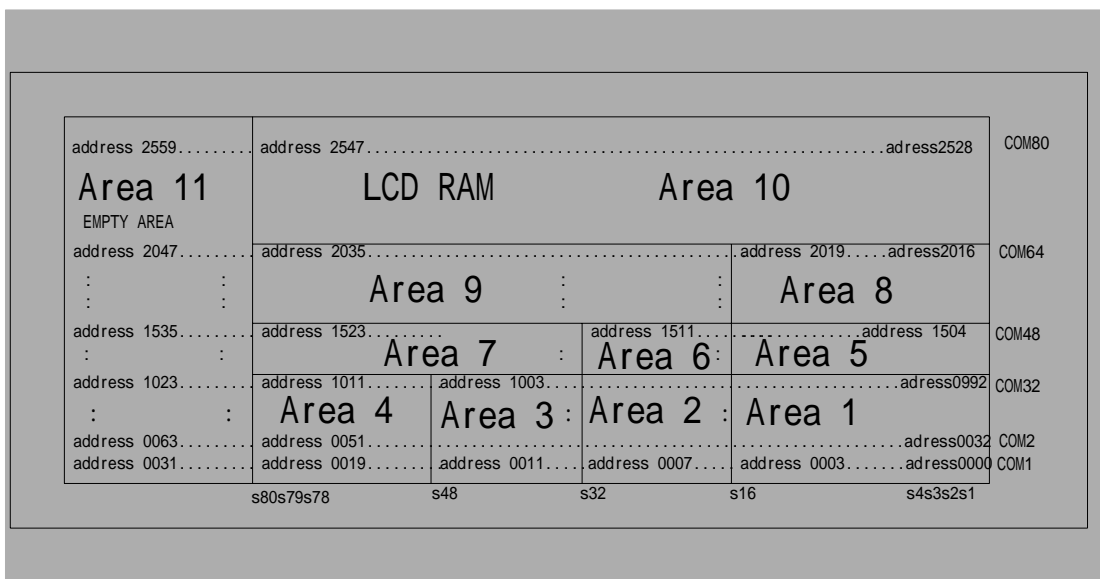
注释: 当信号线直接连到 C - MOS 电路且没有内部上拉或下拉电阻时, 有必要隔离外部干扰来保护信号线。

5-5. RAM 映像

RAM 地址从 0 到 2559

用户给 LCD RAM 写 1, LCD 会点亮, 否则就不亮。LCD RAM 地址 0 到 19 对应

LCD 第 1 列到第 80 列。参考下图 LCD 映像。其他 RAM 可用作通用 RAM。



程序举例应用

```

RAMEN1 BIT TXD      INC DPTR
RAMEN2 BIT RXD      INC DPTR          MOV R2,#0AAH
RAMADS BIT P1.0     DJNZ R0,L1      MOV R1,#0
RAMW BIT P1.1       MOV A,R1          L3:
                    MOV B,#32      MOV A,R1
                    MUL AB         MOV B,#32
org 00000h          MOV DPL,A        MUL AB
st:                 MOV DPH,B      MOV DPL,A
MOV R2,#55H         MOV R0,#10      MOV DPH,B
MOV R1,#0           L2:          MOV R0,#10
L3:                 CLR RAMEN2     L11:
MOV A,R1            CALL SEND      CLR RAMEN1
MOV B,#32           SETB RAMEN2   CALL SEND
MUL AB              INC DPTR      SETB RAMEN1
MOV DPL,A           INC DPTR      INC DPTR
MOV DPH,B           DJNZ R0,L2    INC DPTR
MOV R0,#10          INC R1      DJNZ R0,L11
L1:CLR RAMEN1      CJNE R1,#80,L3  MOV A,R1
CALL SEND           CALL DE      MOV B,#32
SETB RAMEN1

```

MUL AB	SETB RAMEN2	INC R1
MOV DPL,A	INC DPTR	MOV A,R2
MOV DPH,B	INC DPTR	CPL A
MOV R0,#10	DJNZ R0,L22	MOV R2,A
L21:CLR RAMEN2	INC R1	CJNE R1,#80,L33
CALL SEND	MOV A,R2	CALL DE
SETB RAMEN2	CPL A	
INC DPTR	MOV R2,A	MOV DPTR,#TAB
INC DPTR	CJNE R1,#80,L32	MOV R3,#0
DJNZ R0,L21	CALL DE	MOV R4,#0
INC R1		MOV R5,#5
CJNE R1,#80,L31	MOV R2,#000H	L34:
CALL DE	MOV R1,#0	MOV R1,#10
	L33:	L24:
	MOV A,R1	MOV R0,#0
MOV R2,#0FFH	MOV B,#32	L14:
MOV R1,#0	MUL AB	MOV A,#0
L32:	MOV DPL,A	MOVC A,@A+DPTR
MOV A,R1	MOV DPH,B	CALL CHG
MOV B,#32	MOV R0,#10	MOV R2,A
MUL AB	L13:CLR RAMEN1	INC DPTR
MOV DPL,A	CALL SEND	PUSH DPL
MOV DPH,B	SETB RAMEN1	PUSH DPH
MOV R0,#10	INC DPTR	MOV DPL,R4
L12:CLR RAMEN1	INC DPTR	MOV DPH,R3
CALL SEND	DJNZ R0,L13	MOV A,R0
SETB RAMEN1	MOV A,R1	MOV B,#32
INC DPTR	MOV B,#32	MUL AB
INC DPTR	MUL AB	ADD A,DPL
DJNZ R0,L12	MOV DPL,A	MOV DPL,A
MOV A,R1	MOV DPH,B	MOV A,DPH
MOV B,#32	MOV R0,#10	ADDC A,B
MUL AB	L23:CLR RAMEN2	MOV DPH,A
MOV DPL,A	CALL SEND	CLR RAMEN1
MOV DPH,B	SETB RAMEN2	CALL SEND
MOV R0,#10	INC DPTR	SETB RAMEN1
L22:CLR RAMEN2	INC DPTR	POP DPH
CALL SEND	DJNZ R0,L23	POP DPL

INC R0	CALL SEND	MOVC A,@A+DPTR
CJNE R0,#16,L14	SETB RAMEN2	CPL A
MOV A,R4	POP DPH	CALL CHG
ADD A,#2	POP DPL	MOV R2,A
MOV R4,A	INC R0	INC DPTR
MOV A,R3	CJNE R0,#16,L141	PUSH DPL
ADDC A,#0	MOV A,R4	PUSH DPH
MOV R3,A	ADD A,#2	MOV DPL,R4
DJNZ R1,L24	MOV R4,A	MOV DPH,R3
CLR C	MOV A,R3	MOV A,R0
MOV A,R4	ADDC A,#0	MOV B,#32
SUBB A,#20	MOV R3,A	MUL AB
MOV R4,A	DJNZ R1,L241	ADD A,DPL
MOV A,R3	CLR C	MOV DPL,A
SUBB A,#0	MOV A,R4	MOV A,DPH
MOV R3,A	SUBB A,#20	ADDC A,B
MOV R1,#10	MOV R4,A	MOV DPH,A
L241:	MOV A,R3	CLR RAMEN1
MOV R0,#0	SUBB A,#0	CALL SEND
L141:	MOV R3,A	SETB RAMEN1
MOV A,#0	INC R3	POP DPH
MOVC A,@A+DPTR	INC R3	POP DPL
CALL CHG	DJNZ R5,L3434	INC R0
MOV R2,A	CALL DE	CJNE R0,#16,L145
INC DPTR	JMP NEXT	MOV A,R4
PUSH DPL	L3434:JMP L34	ADD A,#2
PUSH DPH		MOV R4,A
MOV DPL,R4	NEXT:	MOV A,R3
MOV DPH,R3	MOV DPTR,#TAB	ADDC A,#0
MOV A,R0	MOV R3,#0	MOV R3,A
MOV B,#32	MOV R4,#0	DJNZ R1,L245
MUL AB	MOV R5,#5	CLR C
ADD A,DPL	L345:	MOV A,R4
MOV DPL,A	MOV R1,#10	SUBB A,#20
MOV A,DPH	L245:	MOV R4,A
ADDC A,B	MOV R0,#0	MOV A,R3
MOV DPH,A	L145:	SUBB A,#0
CLR RAMEN2	MOV A,#0	MOV R3,A

MOV R1,#10	SUBB A,#20	DPTR
L2415:	MOV R4,A	MOV P0,A
MOV R0,#0	MOV A,R3	NOP
L1415:	SUBB A,#0	NOP
MOV A,#0	MOV R3,A	CLR RAMW
MOVC A,@A+DPTR	INC R3	NOP
CPL A	INC R3	NOP
CALL CHG	DJNZ R5,L34345	nop
MOV R2,A	CALL DE	SETB RAMW
INC DPTR	JMP NEXT5	NOP
PUSH DPL	L34345:JMP L345	NOP
PUSH DPH		nop
MOV DPL,R4		MOV A,DPL
MOV DPH,R3		SWAP A
MOV A,R0	NEXT5:	MOV P0,A
MOV B,#32	JMP ST	NOP
MUL AB		NOP
ADD A,DPL		CLR RAMW
MOV DPL,A	DE: MOV R5,#03H	NOP
MOV A,DPH	LP2: MOV R7,#0FFH	NOP
ADDC A,B	LP1: MOV R6,#0FFH	NOP
MOV DPH,A	LP: DJNZ R6,LP	NOP
CLR RAMEN2	DJNZ R7,LP1	SETB RAMW
CALL SEND	DJNZ R5,LP2	NOP
SETB RAMEN2	RET	NOP
POP DPH		NOP
POP DPL	DELAY:	SWAP A
INC R0	MOV R7,#20h	MOV P0,A
CJNE R0,#16,L1415	DJNZ R7,\$	NOP
MOV A,R4	RET	NOP
ADD A,#2		NOP
MOV R4,A		CLR RAMW
MOV A,R3	SEND:	NOP
ADDC A,#0	CALL DELAY	NOP
MOV R3,A	CLR RAMADS	NOP
DJNZ R1,L2415	NOP	SETB RAMW
CLR C	nop	NOP
MOV A,R4	MOV A,DPH;ADDRE IN	NOP

NOP	NOP	mov c,acc.5
SETB RAMADS	NOP	mov 02h,c
MOV A,R2;DATA IN R2	NOP	mov c,acc.4
;SWAP A	CLR RAMW	mov 03h,c
MOV P0,A	NOP	mov c,acc.3
NOP	NOP	mov 04h,c
NOP	NOP	mov c,acc.2
CLR RAMW	SETB RAMW	mov 05h,c
NOP	NOP	mov c,acc.1
NOP	RET	mov 06h,c
NOP		mov c,acc.0
SETB RAMW		mov 07h,c
NOP	chg:mov c,acc.7	MOV A,20H
NOP	mov 00h,c	ret
SWAP A	mov c,acc.6	
MOV P0,A	mov 01h,c	

TAB:

```

DB 00H,00H,00H,00H,00H,00H,00H,00H
    DB 00H,00H,00H,00H,00H,00H,00H,00H
    DB 00H,00H,00H,00H,00H,00H,00H,00H
    DB 00H,00H,00H,00H,00H,00H,00H,00H
    DB 00H,00H,00H,00H,00H,00H,00H,00H
    DB 00H,00H,00H,00H,00H,00H,00H,00H
    DB 00H,00H,00H,00H,00H,00H,00H,00H
DB 01H,01H,01H,01H,01H,0ffH,01H,02H
DB 02H,02H,04H,04H,08H,010H,060H,00H
DB 00H,00H,00H,00H,04H,0feH,00H,080H
DB 080H,040H,040H,020H,010H,0eH,04H,00H    ;大
DB 00H,040H,02fH,021H,01H,02H,0e7H,020H
DB 020H,020H,02fH,020H,020H,050H,08fH,00H
DB 080H,088H,0fcH,00H,040H,050H,0f8H,040H
DB 040H,048H,0fcH,040H,040H,046H,0fcH,00H    ;连
DB 02H,02H,02H,0ffH,04H,09H,09H,011H
DB 03fH,01H,09H,09H,011H,021H,045H,02H
DB 00H,00H,04H,0feH,00H,00H,00H,010H

```

DB 0f8H,00H,040H,020H,010H,018H,08H,00H ;东
DB 04H,03H,01H,00H,0ffH,04H,04H,07H
DB 04H,04H,04H,08H,08H,010H,020H,040H
DB 00H,00H,00H,04H,0feH,00H,010H,0f8H
DB 010H,010H,010H,010H,010H,010H,0a0H,040H ;方
DB 02H,02H,02H,07fH,042H,042H,07fH,042H
DB 042H,07fH,042H,02H,02H,02H,01H,00H
DB 00H,00H,010H,0f8H,010H,010H,0f0H,010H
DB 010H,0f0H,010H,00H,04H,04H,0fcH,00H ;电
DB 08H,07cH,048H,04fH,048H,07aH,04bH,04aH
DB 04aH,07aH,04aH,04bH,04aH,04aH,04bH,09aH
DB 080H,040H,04H,0feH,00H,014H,014H,0a4H
DB 0a4H,044H,0a4H,01cH,0cH,04H,0fcH,04H ;脑
DB 04H,03eH,024H,024H,024H,03dH,026H,025H
DB 024H,03cH,024H,024H,024H,024H,04dH,086H
DB 08H,0fcH,088H,088H,088H,0eH,00H,0fcH
DB 084H,088H,048H,070H,020H,050H,08eH,04H ;股
DB 08H,09H,09H,011H,012H,032H,054H,09bH
DB 011H,011H,011H,011H,012H,012H,014H,010H
DB 020H,020H,020H,010H,010H,0eH,04H,0f0H
DB 010H,010H,010H,010H,010H,010H,0a0H,040H ;份
DB 02H,02H,0ffH,04H,04H,0fH,08H,018H
DB 02fH,048H,088H,0fH,08H,08H,08H,08H
DB 00H,04H,0feH,00H,010H,0f8H,010H,010H
DB 0f0H,010H,010H,0f0H,010H,010H,050H,020H ;有
DB 00H,07dH,045H,049H,049H,051H,049H,049H
DB 045H,045H,045H,069H,051H,041H,041H,041H
DB 08H,0fcH,08H,08H,0f8H,08H,08H,0f8H
DB 04H,088H,050H,020H,010H,04eH,084H,00H ;限
DB 00H,00H,04H,04H,08H,08H,011H,021H
DB 0c2H,02H,04H,08H,010H,01fH,00H,00H
DB 00H,080H,080H,040H,040H,020H,010H,0eH
DB 04H,00H,00H,040H,020H,0f0H,010H,00H ;公
DB 00H,03fH,00H,00H,0ffH,00H,00H,03fH
DB 020H,020H,020H,020H,03fH,020H,00H,00H
DB 08H,0fcH,08H,048H,0e8H,08H,088H,0c8H
DB 088H,088H,088H,088H,088H,088H,028H,010H ;司
DB 02H,02H,02H,0ffH,04H,09H,09H,011H

DB 03fH,01H,09H,09H,011H,021H,045H,02H
DB 00H,00H,04H,0feH,00H,00H,00H,010H
DB 0f8H,00H,040H,020H,010H,018H,08H,00H ;东
DB 04H,03H,01H,00H,0ffH,04H,04H,07H
DB 04H,04H,04H,08H,08H,010H,020H,040H
DB 00H,00H,00H,04H,0feH,00H,010H,0f8H
DB 010H,010H,010H,010H,010H,010H,0a0H,040H ;方
DB 00H,01fH,010H,010H,01fH,010H,010H,01fH
DB 014H,044H,034H,014H,04H,04H,0ffH,00H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H
DB 050H,044H,04cH,050H,040H,044H,0feH,00H ;显
DB 00H,03fH,00H,00H,00H,00H,0ffH,01H
DB 01H,09H,019H,021H,041H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,020H,018H,0cH,04H,00H,00H,00H ;示
DB 03eH,022H,022H,022H,03eH,01H,01H,0ffH
DB 02H,0cH,030H,0feH,022H,022H,022H,03eH
DB 0f8H,088H,088H,088H,0f8H,020H,014H,0feH
DB 080H,060H,018H,0feH,088H,088H,088H,0f8H ;器
DB 08H,08H,08H,08H,0feH,08H,018H,01cH
DB 02aH,028H,048H,089H,08H,08H,08H,08H
DB 010H,010H,010H,014H,0feH,010H,010H,030H
DB 030H,050H,090H,010H,010H,010H,050H,020H ;材
DB 00H,00H,04H,04H,08H,08H,011H,021H
DB 0c2H,02H,04H,08H,010H,01fH,00H,00H
DB 00H,080H,080H,040H,040H,020H,010H,0eH
DB 04H,00H,00H,040H,020H,0f0H,010H,00H ;公
DB 00H,03fH,00H,00H,0ffH,00H,00H,03fH
DB 020H,020H,020H,020H,03fH,020H,00H,00H
DB 08H,0fcH,08H,048H,0e8H,08H,088H,0c8H
DB 088H,088H,088H,088H,088H,088H,028H,010H ;司
DB 0fH,08H,08H,0fH,08H,08H,0fH,00H
DB 0ffH,01H,09H,09H,09H,015H,023H,040H
DB 0e0H,020H,020H,0e0H,020H,020H,0e0H,04H
DB 0feH,00H,020H,0f0H,00H,00H,06H,0fcH ;是
DB 00H,00H,00H,00H,00H,00H,00H,0ffH
DB 00H,00H,00H,00H,00H,00H,00H,00H
DB 00H,00H,00H,00H,00H,00H,04H,0feH

DB 00H,00H,00H,00H,00H,00H,00H,00H ;一

DB 02H,01H,07fH,040H,080H,03fH,04H,01aH

DB 063H,05H,019H,063H,05H,019H,065H,02H

DB 00H,00H,0feH,02H,04H,0f8H,00H,010H

DB 030H,040H,080H,040H,030H,0eH,04H,00H ;家

DB 01H,01H,01H,03fH,02H,02H,0ffH,04H

DB 04H,0fH,00H,00H,00H,06H,01H,00H

DB 00H,00H,010H,0f8H,00H,04H,0feH,00H

DB 00H,0f8H,010H,020H,040H,080H,080H,040H ;专

DB 020H,01bH,048H,040H,040H,040H,040H,040H

DB 040H,040H,040H,040H,040H,040H,040H,040H

DB 04H,0feH,04H,04H,04H,04H,04H,04H

DB 04H,04H,04H,04H,04H,04H,014H,08H ;门

DB 00H,08H,08H,08H,08H,08H,08H,08H

DB 08H,08H,014H,012H,021H,021H,042H,084H

DB 00H,020H,020H,020H,020H,020H,020H,050H

DB 050H,050H,050H,088H,088H,0cH,06H,04H ;从

DB 01H,01H,0ffH,01H,03fH,021H,03fH,01H

DB 03fH,01H,0ffH,01H,03fH,01H,05H,02H

DB 00H,04H,0feH,00H,0f8H,08H,0f8H,00H

DB 0f8H,08H,0feH,08H,0f8H,08H,00H,00H ;事

db 00H,00H,7FH,08H,08H,08H,08H,08H

db 08H,08H,08H,08H,08H,08H,00H,00h

db 00H,00H,22H,32H,2AH,2AH,2AH,2Ah

db 2AH,2AH,2AH,2AH,026H,022H,00H,00H ;TN

DB 01H,07fH,012H,012H,012H,0ffH,012H,012H

DB 012H,023H,041H,07fH,01H,01H,0ffH,00H

DB 04H,084H,024H,024H,024H,0a4H,024H,024H

DB 04H,014H,08H,0fcH,00H,04H,0feH,00H ;型

DB 02H,07H,078H,08H,0aH,0ffH,08H,018H

DB 01cH,02aH,02aH,048H,088H,08H,08H,08H

DB 00H,00H,00H,04H,0feH,084H,084H,084H

DB 084H,084H,084H,084H,0fcH,084H,00H,00H ;和

DB 00H,00H,37H,49H,41H,41H,41H,31H

DB 11H,19H,09H,09H,49H,31H,00H,00H

DB 00H,00H,0D1H,19H,15H,15H,15H,15H

DB 15H,15H,15H,15H,13H,11H,00H,00H ;STN

DB 01H,07fH,012H,012H,012H,0ffH,012H,012H

DB 012H,023H,041H,07fH,01H,01H,0ffH,00H
DB 04H,084H,024H,024H,024H,0a4H,024H,024H
DB 04H,014H,08H,0fcH,00H,04H,0feH,00H ;型
DB 00H,040H,037H,010H,081H,061H,022H,0aH
DB 016H,02bH,0e2H,022H,022H,022H,023H,022H
DB 080H,044H,0feH,020H,020H,03cH,044H,064H
DB 098H,048H,050H,020H,050H,08eH,04H,00H ;液
DB 0fH,08H,08H,0fH,08H,08H,0fH,08H
DB 07eH,042H,042H,07eH,042H,042H,07eH,042H
DB 0e0H,020H,020H,0e0H,020H,020H,0e0H,024H
DB 0feH,084H,084H,0fcH,084H,084H,0fcH,084H ;晶
DB 00H,01fH,010H,010H,01fH,010H,010H,01fH
DB 014H,044H,034H,014H,04H,04H,0ffH,00H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H
DB 050H,044H,04cH,050H,040H,044H,0feH,00H ;显
DB 00H,03fH,00H,00H,00H,00H,0ffH,01H
DB 01H,09H,019H,021H,041H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,020H,018H,0cH,04H,00H,00H,00H ;示
DB 00H,03fH,020H,020H,03fH,022H,021H,02fH
DB 022H,022H,03fH,022H,022H,042H,084H,08H
DB 08H,0fcH,08H,08H,0f8H,020H,048H,0fcH
DB 020H,024H,0feH,020H,020H,020H,020H,020H ;屏
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,07H,03H,03H,01H,00H,00H
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,00H,80H,80H,00H,00H,00H ;dunhao
DB 00H,040H,037H,010H,081H,061H,022H,0aH
DB 016H,02bH,0e2H,022H,022H,022H,023H,022H
DB 080H,044H,0feH,020H,020H,03cH,044H,064H
DB 098H,048H,050H,020H,050H,08eH,04H,00H ;液
DB 0fH,08H,08H,0fH,08H,08H,0fH,08H
DB 07eH,042H,042H,07eH,042H,042H,07eH,042H
DB 0e0H,020H,020H,0e0H,020H,020H,0e0H,024H
DB 0feH,084H,084H,0fcH,084H,084H,0fcH,084H ;晶
DB 00H,01fH,010H,010H,01fH,010H,010H,01fH
DB 014H,044H,034H,014H,04H,04H,0ffH,00H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H

DB 050H,044H,04cH,050H,040H,044H,0feH,00H ;显
DB 00H,03fH,00H,00H,00H,00H,0ffH,01H
DB 01H,09H,019H,021H,041H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,020H,018H,0cH,04H,00H,00H,00H ;示
DB 011H,011H,01fH,011H,0fdH,013H,032H,03bH
DB 056H,053H,090H,01fH,010H,010H,011H,016H
DB 010H,014H,0feH,010H,018H,0fcH,08H,0f8H
DB 08H,0f8H,040H,0feH,040H,0b0H,0eH,04H ;模
DB 010H,010H,010H,010H,013H,0fcH,010H,010H
DB 010H,017H,01cH,0f1H,041H,02H,04H,08H
DB 080H,080H,080H,088H,0fcH,088H,088H,088H
DB 088H,0feH,080H,040H,020H,010H,0eH,04H ;块
DB 00H,07fH,08H,08H,08H,08H,08H,08H
DB 014H,012H,011H,020H,021H,042H,084H,08H
DB 00H,0f0H,020H,020H,040H,040H,0f8H,08H
DB 010H,020H,040H,080H,040H,030H,0eH,04H ;及
DB 010H,011H,011H,011H,0fdH,011H,031H,039H
DB 055H,051H,091H,011H,011H,011H,011H,011H
DB 04H,0feH,04H,04H,04H,0fcH,04H,04H
DB 04H,0fcH,04H,04H,04H,04H,0fcH,04H ;相
DB 010H,08H,04H,04H,07fH,01H,01H,01H
DB 0ffH,01H,02H,02H,04H,08H,030H,0c0H
DB 010H,018H,020H,048H,0fcH,00H,00H,04H
DB 0feH,00H,080H,080H,040H,030H,0eH,04H ;关
DB 02H,02H,02H,07fH,042H,042H,07fH,042H
DB 042H,07fH,042H,02H,02H,02H,01H,00H
DB 00H,00H,010H,0f8H,010H,010H,0f0H,010H
DB 010H,0f0H,010H,00H,04H,04H,0fcH,00H ;电
DB 00H,03fH,00H,00H,00H,01H,01H,0ffH
DB 01H,01H,01H,01H,01H,01H,05H,02H
DB 00H,0f0H,010H,020H,040H,080H,04H,0feH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;子
DB 02H,01H,01H,07fH,08H,04H,04H,01fH
DB 010H,010H,010H,010H,020H,020H,040H,080H
DB 00H,00H,08H,0fcH,010H,020H,048H,0fcH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;产
DB 00H,01fH,010H,010H,010H,01fH,010H,02H

DB 07fH,042H,042H,042H,042H,042H,07eH,042H
DB 010H,0f8H,010H,010H,010H,0f0H,010H,04H
DB 0feH,084H,084H,084H,084H,084H,0fcH,084H ;品
DB 01H,011H,011H,011H,03fH,021H,041H,041H
DB 081H,03fH,01H,01H,01H,01H,0ffH,00H
DB 00H,00H,00H,08H,0fcH,00H,00H,00H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H ;生
DB 02H,01H,01H,07fH,08H,04H,04H,01fH
DB 010H,010H,010H,010H,020H,020H,040H,080H
DB 00H,00H,08H,0fcH,010H,020H,048H,0fcH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;产
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,07H,03H,03H,01H,00H,00H
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,00H,80H,80H,00H,00H,00H ;dunhao
DB 00H,07fH,08H,08H,08H,08H,08H,0ffH
DB 08H,08H,08H,08H,010H,010H,020H,040H
DB 08H,0fcH,020H,020H,020H,020H,024H,0feH
DB 020H,020H,020H,020H,020H,020H,020H,020H ;开
DB 01H,011H,011H,021H,07fH,02H,02H,07H
DB 06H,0aH,09H,010H,021H,042H,08cH,030H
DB 00H,020H,010H,04H,0feH,00H,00H,0f0H
DB 010H,020H,040H,080H,040H,030H,0eH,04H ;发
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,07H,03H,03H,00H,00H,00H
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,00H,80H,80H,00H,00H,00H ;dunhao
DB 01H,00H,03fH,020H,021H,028H,024H,024H
DB 022H,022H,022H,022H,040H,040H,09fH,00H
DB 00H,084H,0feH,00H,04H,084H,084H,048H
DB 048H,048H,010H,010H,020H,044H,0feH,00H ;应
DB 00H,03fH,021H,021H,021H,03fH,021H,021H
DB 021H,03fH,021H,021H,021H,041H,041H,080H
DB 08H,0fcH,08H,08H,08H,0f8H,08H,08H
DB 08H,0f8H,08H,08H,08H,08H,028H,010H ;用
DB 010H,010H,022H,07fH,042H,043H,042H,042H
DB 07eH,042H,042H,042H,042H,07eH,042H,00H
DB 040H,040H,044H,07eH,084H,04H,04H,084H

DB 064H,024H,04H,04H,04H,04H,028H,010H ;的
 DB 01H,01H,01H,03fH,02H,02H,0ffH,04H
 DB 04H,0fH,00H,00H,00H,06H,01H,00H
 DB 00H,00H,010H,0f8H,00H,04H,0feH,00H
 DB 00H,0f8H,010H,020H,040H,080H,080H,040H ;专
 DB 04H,04H,04H,04H,044H,024H,024H,014H
 DB 014H,014H,014H,04H,04H,04H,0ffH,00H
 DB 040H,040H,040H,040H,044H,044H,048H,048H
 DB 050H,050H,060H,040H,040H,044H,0feH,00H ;业
 DB 00H,00H,07fH,01H,01H,01H,01H,01H
 DB 01H,01H,01H,01H,01H,0ffH,00H,00H
 DB 00H,08H,0fcH,00H,00H,00H,00H,00H
 DB 00H,00H,00H,00H,04H,0feH,00H,00H ;工
 DB 00H,00H,01fH,010H,010H,010H,010H,010H
 DB 010H,010H,010H,020H,020H,040H,080H,00H
 DB 00H,08H,0fcH,00H,00H,00H,00H,00H
 DB 00H,00H,00H,00H,00H,00H,00H,00H ;厂
 db 00H,00H,00H,00H,00H,00H,00H,00H
 db 03H,07H,06H,06H,07H,03H,00H,00h
 db 00H,00H,00H,00H,00H,00H,00H,00H
 db 0C0H,0e0H,60H,60H,0e0H,0C0H,00H,00H ;juhao
 DB 01H,01H,02H,04H,08H,010H,02fH,0c1H
 DB 01H,01H,0fH,01H,01H,01H,07fH,00H
 DB 00H,00H,080H,040H,020H,050H,0eeH,04H
 DB 00H,040H,0e0H,00H,00H,08H,0fcH,00H ;全
 DB 01H,01H,0ffH,02H,04H,0fH,018H,02fH
 DB 0c8H,0fH,08H,0ffH,04H,08H,01fH,00H
 DB 00H,04H,0feH,080H,040H,0e0H,010H,0eeH
 DB 04H,0e0H,04H,0feH,00H,020H,0f0H,010H ;套
 DB 01H,07fH,01H,01H,01H,03fH,020H,020H
 DB 041H,07fH,01H,01H,01H,011H,0aH,04H
 DB 08H,088H,08H,08H,08H,08H,08H,08H
 DB 08H,088H,08H,08H,08H,08H,08H,08H ;引
 DB 02H,042H,022H,02fH,02H,02H,0e2H,022H
 DB 02fH,022H,022H,022H,024H,050H,08fH,00H
 DB 020H,020H,028H,0fcH,020H,020H,020H,028H
 DB 0fcH,020H,020H,020H,020H,026H,0fcH,00H ;进
 DB 08H,06H,02H,07fH,01H,03fH,01H,0ffH

DB 01H,01H,07fH,01H,02H,04H,018H,0e0H
DB 020H,060H,088H,0fcH,00H,0f8H,00H,0feH
DB 00H,08H,0fcH,00H,080H,060H,01eH,04H ;美
DB 00H,07fH,040H,05fH,041H,041H,041H,04fH
DB 041H,041H,041H,041H,05fH,040H,07fH,040H
DB 04H,0feH,024H,0f4H,04H,04H,044H,0e4H
DB 04H,044H,024H,04H,0f4H,04H,0fcH,04H ;国
DB 00H,040H,037H,010H,081H,061H,022H,0aH
DB 016H,02bH,0e2H,022H,022H,022H,023H,022H
DB 080H,044H,0feH,020H,020H,03cH,044H,064H
DB 098H,048H,050H,020H,050H,08eH,04H,00H ;液
DB 0fH,08H,08H,0fH,08H,08H,0fH,08H
DB 07eH,042H,042H,07eH,042H,042H,07eH,042H
DB 0e0H,020H,020H,0e0H,020H,020H,0e0H,024H
DB 0feH,084H,084H,0fcH,084H,084H,0fcH,084H ;晶
DB 00H,01fH,010H,010H,01fH,010H,010H,01fH
DB 014H,044H,034H,014H,04H,04H,0ffH,00H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H
DB 050H,044H,04cH,050H,040H,044H,0feH,00H ;显
DB 00H,03fH,00H,00H,00H,00H,0ffH,01H
DB 01H,09H,019H,021H,041H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,020H,018H,0cH,04H,00H,00H,00H ;示
DB 03eH,022H,022H,022H,03eH,01H,01H,0ffH
DB 02H,0cH,030H,0feH,022H,022H,022H,03eH
DB 0f8H,088H,088H,088H,0f8H,020H,014H,0feH
DB 080H,060H,018H,0feH,088H,088H,088H,0f8H ;器
DB 01H,011H,011H,011H,03fH,021H,041H,041H
DB 081H,03fH,01H,01H,01H,01H,0ffH,00H
DB 00H,00H,00H,08H,0fcH,00H,00H,00H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H ;生
DB 02H,01H,01H,07fH,08H,04H,04H,01fH
DB 010H,010H,010H,010H,020H,020H,040H,080H
DB 00H,00H,08H,0fcH,010H,020H,048H,0fcH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;产
DB 01H,021H,011H,011H,01H,02H,0f4H,013H
DB 011H,011H,010H,010H,014H,018H,013H,0cH
DB 0f0H,010H,010H,010H,010H,0eH,00H,0f8H

DB 08H,010H,090H,0a0H,040H,0b0H,0eH,04H ;设

DB 04H,07H,08H,014H,023H,02H,0cH,030H

DB 0dfH,011H,011H,01fH,011H,011H,01fH,010H

DB 00H,0f0H,020H,040H,080H,080H,060H,01eH

DB 0f4H,010H,010H,0f0H,010H,010H,0f0H,010H ;备

DB 02H,07H,078H,08H,0aH,0ffH,08H,018H

DB 01cH,02aH,02aH,048H,088H,08H,08H,08H

DB 00H,00H,00H,04H,0feH,084H,084H,084H

DB 084H,084H,084H,084H,0fcH,084H,00H,00H ;和

DB 00H,00H,07fH,01H,01H,01H,01H,01H

DB 01H,01H,01H,01H,01H,0ffH,00H,00H

DB 00H,08H,0fcH,00H,00H,00H,00H,00H

DB 00H,00H,00H,00H,04H,0feH,00H,00H ;工

DB 04H,04H,0ffH,04H,00H,03fH,00H,01H

DB 02H,04H,08H,010H,020H,020H,020H,01fH

DB 040H,044H,0feH,040H,00H,0c0H,080H,00H

DB 00H,00H,00H,00H,02H,02H,02H,0feH ;艺

DB 010H,010H,010H,013H,0fcH,010H,010H,013H

DB 01aH,031H,0d1H,010H,010H,010H,051H,026H

DB 040H,040H,048H,0fcH,040H,040H,040H,0f8H

DB 08H,010H,010H,0a0H,040H,0b0H,0eH,04H ;技

DB 01H,01H,01H,01H,01H,0ffH,01H,03H

DB 05H,09H,011H,021H,0c1H,01H,01H,01H

DB 00H,040H,030H,010H,04H,0feH,00H,080H

DB 040H,020H,010H,0eH,04H,00H,00H,00H ;术

db 00H,00H,00H,00H,00H,00H,00H,00H

db 01H,03H,03H,01H,00H,01H,02H,00h

db 00H,00H,00H,00H,00H,00H,00H,00H

db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao

DB 08H,08H,01fH,011H,021H,041H,01fH,011H

DB 011H,011H,0ffH,01H,01H,01H,01H,01H

DB 00H,08H,0fcH,00H,00H,010H,0f8H,00H

DB 00H,04H,0feH,00H,00H,00H,00H,00H ;年

DB 01H,011H,011H,011H,03fH,021H,041H,041H

DB 081H,03fH,01H,01H,01H,01H,0ffH,00H

DB 00H,00H,00H,08H,0fcH,00H,00H,00H

DB 010H,0f8H,00H,00H,00H,04H,0feH,00H ;生

DB 02H,01H,01H,07fH,08H,04H,04H,01fH

DB 010H,010H,010H,010H,020H,020H,040H,080H
DB 00H,00H,08H,0fcH,010H,020H,048H,0fcH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;产
DB 010H,010H,024H,044H,0feH,02H,07cH,044H
DB 07cH,044H,044H,07cH,044H,044H,054H,048H
DB 080H,088H,098H,0a0H,0c0H,084H,084H,07cH
DB 00H,088H,098H,0a0H,0c0H,082H,082H,07eH ;能
DB 02H,02H,02H,02H,07fH,02H,02H,02H
DB 02H,02H,02H,04H,04H,08H,08H,070H
DB 00H,00H,00H,08H,0fcH,08H,08H,08H
DB 08H,08H,08H,08H,08H,088H,050H,020H ;力
DB 00H,00H,07fH,044H,044H,044H,044H,044H
DB 044H,044H,048H,050H,040H,07fH,040H,00H
DB 00H,04H,0feH,044H,044H,044H,044H,044H
DB 044H,03cH,04H,04H,04H,0fcH,04H,00H ;四
DB 00H,0ffH,01H,02H,04H,01fH,010H,010H
DB 010H,01fH,010H,010H,010H,010H,01fH,010H
DB 04H,0feH,00H,00H,010H,0f8H,010H,010H
DB 010H,0f0H,010H,010H,010H,010H,0f0H,010H ;百
DB 00H,00H,0ffH,02H,02H,02H,03H,02H
DB 02H,04H,04H,04H,08H,010H,020H,040H
DB 00H,04H,0feH,00H,00H,010H,0f8H,010H
DB 010H,010H,010H,010H,010H,010H,0a0H,040H ;万
DB 010H,010H,013H,010H,0fcH,010H,037H,038H
DB 054H,051H,091H,012H,014H,010H,011H,010H
DB 00H,010H,0f8H,00H,00H,04H,0feH,040H
DB 040H,050H,048H,04cH,044H,040H,040H,080H ;标
DB 01H,041H,031H,013H,02H,016H,01bH,012H
DB 022H,0e3H,022H,022H,022H,023H,022H,02H
DB 040H,020H,024H,0feH,020H,028H,0fcH,020H
DB 028H,0fcH,020H,020H,024H,0feH,00H,00H ;准
DB 00H,020H,020H,020H,020H,03fH,020H,020H
DB 03fH,020H,020H,020H,020H,020H,040H,080H
DB 080H,080H,080H,080H,084H,0feH,00H,00H
DB 0c0H,040H,040H,040H,040H,040H,040H,040H ;片
db 00H,00H,00H,00H,00H,00H,00H,00H
db 03H,07H,06H,06H,07H,03H,00H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H

db 0C0H,0e0H,60H,60H,0e0H,0C0H,00H,00H ;juhao
DB 00H,00H,04H,04H,08H,08H,011H,021H
DB 0c2H,02H,04H,08H,010H,01fH,00H,00H
DB 00H,080H,080H,040H,040H,020H,010H,0eH
DB 04H,00H,00H,040H,020H,0f0H,010H,00H ;公
DB 00H,03fH,00H,00H,0ffH,00H,00H,03fH
DB 020H,020H,020H,020H,03fH,020H,00H,00H
DB 08H,0fcH,08H,048H,0e8H,08H,088H,0c8H
DB 088H,088H,088H,088H,088H,088H,028H,010H ;司
DB 01H,02H,04H,01fH,010H,010H,01fH,010H
DB 010H,010H,01fH,010H,010H,010H,01fH,010H
DB 00H,00H,010H,0f8H,010H,010H,0f0H,010H
DB 010H,010H,0f0H,010H,010H,010H,0f0H,010H ;自
DB 08H,08H,014H,012H,021H,020H,07eH,0a2H
DB 22H,2AH,24H,20H,21H,21H,1FH,00H
DB 04H,04H,04H,024H,0a4H,0a4H,024H,024H
DB 024H,024H,024H,04H,04H,04H,014H,08H ;创
DB 00H,00H,0fbH,08H,017H,010H,03bH,08H
DB 08bH,050H,050H,037H,020H,050H,088H,07H
DB 040H,048H,0fcH,048H,0feH,048H,0f8H,040H
DB 0f8H,040H,048H,0fcH,040H,040H,046H,0fcH ;建
DB 00H,04H,042H,043H,041H,040H,040H,040H
DB 041H,042H,044H,048H,050H,060H,01H,06H
DB 00H,08H,08H,08H,08H,08H,08H,08H
DB 010H,010H,010H,020H,030H,048H,084H,04H ;以
DB 01H,01H,01H,07fH,01H,021H,019H,09H
DB 0ffH,03H,05H,09H,031H,0c1H,01H,01H
DB 00H,00H,08H,0fcH,00H,010H,030H,044H
DB 0feH,080H,040H,030H,01eH,04H,00H,00H ;来
db 00H,00H,00H,00H,00H,00H,00H,00H
db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 00H,07fH,00H,00H,020H,020H,03fH,020H
DB 020H,020H,020H,020H,020H,020H,01fH,00H
DB 010H,0f8H,010H,010H,010H,010H,0f0H,010H
DB 00H,00H,00H,04H,04H,04H,0fcH,00H ;已
DB 00H,010H,0cH,04H,00H,0ffH,01H,01H

DB 02H,02H,04H,08H,010H,020H,040H,00H
DB 080H,080H,080H,080H,084H,0feH,04H,04H
DB 04H,084H,064H,024H,04H,04H,028H,010H ;为
DB 00H,07fH,040H,05fH,041H,041H,041H,04fH
DB 041H,041H,041H,041H,05fH,040H,07fH,040H
DB 04H,0feH,024H,0f4H,04H,04H,044H,0e4H
DB 04H,044H,024H,04H,0f4H,04H,0fcH,04H ;国
DB 01H,01H,01H,01H,07fH,041H,041H,042H
DB 042H,044H,048H,050H,040H,040H,040H,040H
DB 00H,00H,00H,04H,0feH,04H,04H,04H
DB 084H,064H,034H,014H,04H,04H,014H,08H ;内
DB 08H,08H,08H,010H,01fH,021H,021H,062H
DB 092H,0aH,04H,08H,010H,020H,040H,00H
DB 040H,040H,040H,040H,040H,060H,050H,048H
DB 046H,042H,040H,040H,040H,040H,040H,040H ;外
DB 02H,01H,07fH,048H,08fH,08H,014H,023H
DB 0cH,030H,0cfH,08H,08H,08H,0fH,08H
DB 00H,00H,0feH,02H,0f4H,020H,040H,080H
DB 060H,01eH,0e4H,020H,020H,020H,0e0H,020H ;客
DB 01H,00H,00H,03fH,020H,020H,020H,03fH
DB 020H,020H,020H,020H,020H,040H,040H,080H
DB 00H,080H,084H,0feH,04H,04H,04H,0fcH
DB 04H,00H,00H,00H,00H,00H,00H,00H ;户
DB 01H,021H,011H,011H,01H,02H,0f4H,013H
DB 011H,011H,010H,010H,014H,018H,013H,0cH
DB 0f0H,010H,010H,010H,010H,0eH,00H,0f8H
DB 08H,010H,090H,0a0H,040H,0b0H,0eH,04H ;设
DB 00H,020H,010H,010H,00H,00H,0f7H,010H
DB 010H,010H,010H,012H,014H,018H,010H,00H
DB 040H,040H,040H,040H,040H,044H,0feH,040H
DB 040H,040H,040H,040H,040H,040H,040H,040H ;计
DB 02H,07H,078H,08H,0aH,0ffH,08H,018H
DB 01cH,02aH,02aH,048H,088H,08H,08H,08H
DB 00H,00H,00H,04H,0feH,084H,084H,084H
DB 084H,084H,084H,084H,0fcH,084H,00H,00H ;和
DB 01H,011H,011H,011H,03fH,021H,041H,041H
DB 081H,03fH,01H,01H,01H,01H,0ffH,00H
DB 00H,00H,00H,08H,0fcH,00H,00H,00H

DB 010H,0f8H,00H,00H,00H,04H,0feH,00H ;生
DB 02H,01H,01H,07fH,08H,04H,04H,01fH
DB 010H,010H,010H,010H,020H,020H,040H,080H
DB 00H,00H,08H,0fcH,010H,020H,048H,0fcH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;产
TAB2:DB 01H,01H,021H,021H,021H,021H,03fH,021H
DB 01H,041H,041H,041H,041H,041H,07fH,040H
DB 00H,00H,08H,08H,08H,08H,0f8H,08H
DB 00H,04H,04H,04H,04H,04H,0fcH,04H ;出
DB 010H,010H,013H,010H,0fcH,010H,037H,038H
DB 054H,051H,091H,012H,014H,010H,011H,010H
DB 00H,010H,0f8H,00H,00H,04H,0feH,040H
DB 040H,050H,048H,04cH,044H,040H,040H,080H ;标
DB 01H,041H,031H,013H,02H,016H,01bH,012H
DB 022H,0e3H,022H,022H,022H,023H,022H,02H
DB 040H,020H,024H,0feH,020H,028H,0fcH,020H
DB 028H,0fcH,020H,020H,024H,0feH,00H,00H ;准
DB 010H,010H,022H,07fH,042H,043H,042H,042H
DB 07eH,042H,042H,042H,042H,07eH,042H,00H
DB 040H,040H,044H,07eH,084H,04H,04H,084H
DB 064H,024H,04H,04H,04H,04H,028H,010H ;的
DB 02H,07H,078H,08H,0aH,0ffH,08H,018H
DB 01cH,02aH,02aH,048H,088H,08H,08H,08H
DB 00H,00H,00H,04H,0feH,084H,084H,084H
DB 084H,084H,084H,084H,0fcH,084H,00H,00H ;和
DB 01H,01H,01H,03fH,02H,02H,0ffH,04H
DB 04H,0fH,00H,00H,00H,06H,01H,00H
DB 00H,00H,010H,0f8H,00H,04H,0feH,00H
DB 00H,0f8H,010H,020H,040H,080H,080H,040H ;专
DB 00H,03fH,021H,021H,021H,03fH,021H,021H
DB 021H,03fH,021H,021H,021H,041H,041H,080H
DB 08H,0fcH,08H,08H,08H,0f8H,08H,08H
DB 08H,0f8H,08H,08H,08H,08H,028H,010H ;用
DB 010H,010H,022H,07fH,042H,043H,042H,042H
DB 07eH,042H,042H,042H,042H,07eH,042H,00H
DB 040H,040H,044H,07eH,084H,04H,04H,084H
DB 064H,024H,04H,04H,04H,04H,028H,010H ;的
DB 00H,06H,038H,020H,024H,03eH,021H,024H

DB 03eH,020H,020H,03eH,0e0H,020H,020H,023H
DB 08H,0fcH,088H,088H,088H,088H,06H,00H
DB 0f8H,088H,090H,050H,020H,050H,08eH,04H ;段
DB 08H,0ffH,010H,011H,021H,025H,03fH,065H
DB 0a5H,024H,024H,027H,024H,03cH,024H,00H
DB 010H,0f8H,010H,010H,010H,010H,010H,014H
DB 0feH,04H,024H,0f4H,04H,04H,014H,08H ;码
DB 00H,00H,00H,00H,0ffH,00H,00H,03eH
DB 08H,08H,08H,09H,0eH,070H,020H,00H
DB 080H,0a0H,090H,084H,0feH,080H,080H,080H
DB 080H,040H,040H,020H,022H,012H,0aH,04H ;式
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,07H,03H,03H,01H,00H,00H
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,00H,80H,80H,00H,00H,00H ;dunhao
DB 02H,01H,03fH,020H,040H,01fH,00H,00H
DB 01H,0ffH,01H,01H,01H,01H,05H,02H
DB 00H,00H,0fcH,04H,08H,0e0H,040H,080H
DB 04H,0feH,00H,00H,00H,00H,00H,00H ;字
DB 010H,012H,01fH,028H,045H,088H,08H,017H
DB 030H,052H,091H,011H,010H,010H,010H,010H
DB 040H,044H,07eH,0a0H,010H,010H,014H,0feH
DB 010H,010H,010H,010H,010H,010H,050H,020H ;符
DB 02H,02H,02H,03H,02H,02H,03fH,020H
DB 020H,020H,03fH,00H,029H,024H,044H,080H
DB 00H,00H,08H,0fcH,00H,010H,0f8H,010H
DB 010H,010H,0f0H,00H,010H,0c8H,044H,04H ;点
DB 00H,078H,04fH,050H,050H,061H,051H,04bH
DB 048H,048H,068H,057H,040H,040H,040H,040H
DB 080H,084H,0feH,080H,0a0H,020H,028H,0fcH
DB 020H,020H,024H,0feH,020H,020H,020H,020H ;阵
DB 00H,00H,00H,00H,0ffH,00H,00H,03eH
DB 08H,08H,08H,09H,0eH,070H,020H,00H
DB 080H,0a0H,090H,084H,0feH,080H,080H,080H
DB 080H,040H,040H,020H,022H,012H,0aH,04H ;式
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,07H,03H,03H,01H,00H,00H
db 00H,00H,00H,00H,00H,00H,00H,00H

db 00H,00H,00H,80H,80H,00H,00H,00H ;dunhao
DB 00H,07fH,044H,047H,04cH,052H,041H,042H
DB 046H,049H,070H,046H,041H,040H,07fH,040H
DB 04H,0feH,04H,0e4H,044H,084H,04H,084H
DB 044H,03cH,094H,04H,04H,084H,0fcH,04H ;图
DB 00H,07fH,011H,011H,011H,011H,011H,0ffH
DB 011H,011H,011H,011H,021H,021H,041H,01H
DB 080H,0c4H,0cH,010H,020H,044H,0cH,0d0H
DB 020H,042H,06H,08H,010H,020H,040H,080H ;形
DB 02H,02H,02H,03H,02H,02H,03fH,020H
DB 020H,020H,03fH,00H,029H,024H,044H,080H
DB 00H,00H,08H,0fcH,00H,010H,0f8H,010H
DB 010H,010H,0f0H,00H,010H,0c8H,044H,04H ;点
DB 00H,078H,04fH,050H,050H,061H,051H,04bH
DB 048H,048H,068H,057H,040H,040H,040H,040H
DB 080H,084H,0feH,080H,0a0H,020H,028H,0fcH
DB 020H,020H,024H,0feH,020H,020H,020H,020H ;阵
DB 00H,00H,00H,00H,0ffH,00H,00H,03eH
DB 08H,08H,08H,09H,0eH,070H,020H,00H
DB 080H,0a0H,090H,084H,0feH,080H,080H,080H
DB 080H,040H,040H,020H,022H,012H,0aH,04H ;式
DB 010H,010H,022H,07fH,042H,043H,042H,042H
DB 07eH,042H,042H,042H,042H,07eH,042H,00H
DB 040H,040H,044H,07eH,084H,04H,04H,084H
DB 064H,024H,04H,04H,04H,04H,028H,010H ;的
db 00H,00H,7FH,08H,08H,08H,08H,08H
db 08H,08H,08H,08H,08H,08H,00H,00h
db 00H,00H,22H,32H,2AH,2AH,2AH,2Ah
db 2AH,2AH,2AH,2AH,026H,022H,00H,00H ;TN
DB 01H,07fH,012H,012H,012H,0ffH,012H,012H
DB 012H,023H,041H,07fH,01H,01H,0ffH,00H
DB 04H,084H,024H,024H,024H,0a4H,024H,024H
DB 04H,014H,08H,0fcH,00H,04H,0feH,00H ;型
DB 02H,07H,078H,08H,0aH,0ffH,08H,018H
DB 01cH,02aH,02aH,048H,088H,08H,08H,08H
DB 00H,00H,00H,04H,0feH,084H,084H,084H
DB 084H,084H,084H,084H,0fcH,084H,00H,00H ;和
DB 00H,00H,37H,49H,41H,41H,41H,31H

DB 11H,19H,09H,09H,49H,31H,00H,00H
DB 00H,00H,0D1H,19H,15H,15H,15H,15H
DB 15H,15H,15H,15H,13H,11H,00H,00H ;STN
DB 01H,07fH,012H,012H,012H,0ffH,012H,012H
DB 012H,023H,041H,07fH,01H,01H,0ffH,00H
DB 04H,084H,024H,024H,024H,0a4H,024H,024H
DB 04H,014H,08H,0fcH,00H,04H,0feH,00H ;型
DB 010H,010H,022H,07fH,042H,043H,042H,042H
DB 07eH,042H,042H,042H,042H,07eH,042H,00H
DB 040H,040H,044H,07eH,084H,04H,04H,084H
DB 064H,024H,04H,04H,04H,04H,028H,010H ;的
DB 00H,040H,037H,010H,081H,061H,022H,0aH
DB 016H,02bH,0e2H,022H,022H,022H,023H,022H
DB 080H,044H,0feH,020H,020H,03cH,044H,064H
DB 098H,048H,050H,020H,050H,08eH,04H,00H ;液
DB 0fH,08H,08H,0fH,08H,08H,0fH,08H
DB 07eH,042H,042H,07eH,042H,042H,07eH,042H
DB 0e0H,020H,020H,0e0H,020H,020H,0e0H,024H
DB 0feH,084H,084H,0fcH,084H,084H,0fcH,084H ;晶
DB 00H,01fH,010H,010H,01fH,010H,010H,01fH
DB 014H,044H,034H,014H,04H,04H,0ffH,00H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H
DB 050H,044H,04cH,050H,040H,044H,0feH,00H ;显
DB 00H,03fH,00H,00H,00H,00H,0ffH,01H
DB 01H,09H,019H,021H,041H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,020H,018H,0cH,04H,00H,00H,00H ;示
DB 00H,03fH,020H,020H,03fH,022H,021H,02fH
DB 022H,022H,03fH,022H,022H,042H,084H,08H
DB 08H,0fcH,08H,08H,0f8H,020H,048H,0fcH
DB 020H,024H,0feH,020H,020H,020H,020H,020H ;屏
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,07H,03H,03H,01H,00H,00H
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H,00H,80H,80H,00H,00H,00H ;dunhao
DB 00H,040H,037H,010H,081H,061H,022H,0aH
DB 016H,02bH,0e2H,022H,022H,022H,023H,022H
DB 080H,044H,0feH,020H,020H,03cH,044H,064H

DB 098H,048H,050H,020H,050H,08eH,04H,00H ;液
DB 0fH,08H,08H,0fH,08H,08H,0fH,08H
DB 07eH,042H,042H,07eH,042H,042H,07eH,042H
DB 0e0H,020H,020H,0e0H,020H,020H,0e0H,024H
DB 0feH,084H,084H,0fcH,084H,084H,0fcH,084H ;晶
DB 00H,01fH,010H,010H,01fH,010H,010H,01fH
DB 014H,044H,034H,014H,04H,04H,0ffH,00H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H
DB 050H,044H,04cH,050H,040H,044H,0feH,00H ;显
DB 00H,03fH,00H,00H,00H,00H,0ffH,01H
DB 01H,09H,019H,021H,041H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,020H,018H,0cH,04H,00H,00H,00H ;示
DB 011H,011H,01fH,011H,0fdH,013H,032H,03bH
DB 056H,053H,090H,01fH,010H,010H,011H,016H
DB 010H,014H,0feH,010H,018H,0fcH,08H,0f8H
DB 08H,0f8H,040H,0feH,040H,0b0H,0eH,04H ;模
DB 010H,010H,010H,010H,013H,0fcH,010H,010H
DB 010H,017H,01cH,0f1H,041H,02H,04H,08H
DB 080H,080H,080H,088H,0fcH,088H,088H,088H
DB 088H,0feH,080H,040H,020H,010H,0eH,04H ;块
DB 00H,04H,02H,03H,01H,0ffH,00H,00H
DB 04H,0cH,08H,010H,010H,020H,040H,00H
DB 00H,00H,00H,00H,04H,0feH,00H,00H
DB 040H,020H,010H,018H,0cH,0cH,04H,00H ;六
DB 00H,0ffH,01H,02H,04H,01fH,010H,010H
DB 010H,01fH,010H,010H,010H,010H,01fH,010H
DB 04H,0feH,00H,00H,010H,0f8H,010H,010H
DB 010H,0f0H,010H,010H,010H,010H,0f0H,010H ;百
DB 01H,01H,02H,04H,08H,010H,02fH,0c1H
DB 01H,03fH,01H,09H,019H,021H,045H,02H
DB 00H,00H,080H,040H,020H,010H,0eeH,04H
DB 010H,0f8H,00H,020H,018H,0cH,04H,00H ;余
DB 08H,01cH,0f0H,010H,011H,0ffH,011H,039H
DB 035H,055H,051H,090H,010H,010H,010H,010H
DB 020H,020H,020H,024H,0feH,024H,024H,024H
DB 024H,0fcH,024H,020H,020H,020H,020H,020H ;种
db 00H,00H,00H,00H,00H,00H,00H,00H

db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 00H,043H,030H,010H,00H,07H,0f1H,011H
DB 011H,011H,012H,012H,014H,028H,047H,00H
DB 010H,0f8H,00H,00H,08H,0fcH,020H,020H
DB 020H,024H,024H,01cH,00H,06H,0fcH,00H ;远
DB 010H,011H,010H,03cH,021H,041H,0bdH,011H
DB 011H,0fdH,011H,011H,015H,019H,011H,01H
DB 020H,024H,0a8H,024H,0feH,04H,04H,0fcH
DB 04H,04H,0fcH,04H,04H,04H,014H,08H ;销
DB 04H,07eH,040H,042H,062H,055H,054H,048H
DB 054H,052H,062H,040H,044H,07eH,01H,02H
DB 040H,040H,040H,07eH,082H,024H,020H,020H
DB 020H,020H,050H,050H,088H,08eH,04H,00H ;欧
DB 08H,06H,02H,07fH,01H,03fH,01H,0ffH
DB 01H,01H,07fH,01H,02H,04H,018H,0e0H
DB 020H,060H,088H,0fcH,00H,0f8H,00H,0feH
DB 00H,08H,0fcH,00H,080H,060H,01eH,04H ;美
DB 00H,07fH,08H,08H,08H,08H,08H,08H
DB 014H,012H,011H,020H,021H,042H,084H,08H
DB 00H,0f0H,020H,020H,040H,040H,0f8H,08H
DB 010H,020H,040H,080H,040H,030H,0eH,04H ;及
DB 02H,02H,02H,0ffH,04H,09H,09H,011H
DB 03fH,01H,09H,09H,011H,021H,045H,02H
DB 00H,00H,04H,0feH,00H,00H,00H,010H
DB 0f8H,00H,040H,020H,010H,018H,08H,00H ;东
DB 01H,01H,0ffH,01H,01H,07fH,048H,044H
DB 05fH,041H,041H,05fH,041H,041H,041H,040H
DB 00H,04H,0feH,00H,04H,0feH,024H,044H
DB 0f4H,04H,04H,0f4H,04H,04H,014H,08H ;南
DB 00H,07fH,04H,04H,04H,04H,044H,024H
DB 024H,014H,014H,04H,04H,04H,0ffH,00H
DB 08H,0fcH,040H,040H,040H,040H,048H,04cH
DB 050H,050H,060H,040H,040H,044H,0feH,00H ;亚
DB 02H,01H,00H,0ffH,01H,01H,03fH,021H
DB 021H,021H,021H,021H,021H,021H,01H,01H
DB 00H,00H,04H,0feH,00H,08H,0fcH,08H

DB 08H,08H,08H,08H,028H,010H,00H,00H ;市
DB 020H,027H,020H,020H,0f8H,021H,027H,021H
DB 021H,021H,03aH,0e2H,044H,08H,011H,00H
DB 00H,0f8H,020H,040H,080H,04H,0feH,024H
DB 024H,024H,024H,044H,044H,084H,028H,010H ;场
db 00H,00H,00H,00H,00H,00H,00H,00H
db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 01H,00H,03fH,020H,020H,020H,020H,020H
DB 020H,020H,020H,020H,040H,040H,080H,00H
DB 00H,084H,0feH,00H,00H,00H,00H,00H
DB 00H,00H,00H,00H,00H,00H,00H,00H ;广
DB 00H,040H,037H,010H,080H,040H,047H,010H
DB 010H,020H,0e0H,021H,026H,029H,020H,020H
DB 010H,038H,0c0H,080H,040H,040H,0fcH,08H
DB 030H,040H,080H,00H,00H,06H,0fcH,00H ;泛
DB 01H,00H,03fH,020H,021H,028H,024H,024H
DB 022H,022H,022H,022H,040H,040H,09fH,00H
DB 00H,084H,0feH,00H,04H,084H,084H,048H
DB 048H,048H,010H,010H,020H,044H,0feH,00H ;应
DB 00H,03fH,021H,021H,021H,03fH,021H,021H
DB 021H,03fH,021H,021H,021H,041H,041H,080H
DB 08H,0fcH,08H,08H,08H,0f8H,08H,08H
DB 08H,0f8H,08H,08H,08H,08H,028H,010H ;用
DB 00H,03fH,01H,01H,01H,01H,0ffH,01H
DB 01H,01H,01H,01H,01H,01H,05H,02H
DB 010H,0f8H,00H,00H,00H,04H,0feH,00H
DB 00H,00H,00H,00H,00H,00H,00H,00H ;于
DB 04H,04H,07H,08H,014H,022H,01H,06H
DB 018H,0e0H,0fH,08H,08H,08H,0fH,08H
DB 00H,00H,0f0H,010H,020H,040H,080H,060H
DB 01eH,04H,0f0H,010H,010H,010H,0f0H,010H ;各
DB 08H,01cH,0f0H,010H,011H,0ffH,011H,039H
DB 035H,055H,051H,090H,010H,010H,010H,010H
DB 020H,020H,020H,024H,0feH,024H,024H,024H
DB 024H,0fcH,024H,020H,020H,020H,020H,020H ;种
DB 010H,013H,028H,024H,043H,0a1H,011H,01H

DB 0ffH,03H,05H,029H,010H,08H,08H,03H
DB 04H,0feH,020H,044H,0feH,04H,024H,024H
DB 024H,024H,024H,024H,050H,048H,086H,02H ;领
DB 020H,020H,020H,027H,0f8H,020H,027H,024H
DB 024H,024H,03fH,0e0H,043H,0cH,00H,01H
DB 020H,028H,024H,0feH,020H,0a0H,0e0H,0a4H
DB 0a4H,0a8H,090H,010H,0aaH,04aH,086H,00H ;域
db 00H,00H,00H,00H,00H,00H,00H,00H
db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 010H,0cH,04H,03fH,04H,04H,04H,04H
DB 0ffH,04H,04H,04H,08H,08H,010H,020H
DB 010H,030H,040H,0fcH,020H,020H,020H,024H
DB 0feH,020H,020H,020H,020H,020H,020H,020H ;并
DB 00H,07fH,011H,011H,011H,011H,011H,0ffH
DB 011H,011H,011H,011H,021H,021H,041H,01H
DB 080H,0c4H,0cH,010H,020H,044H,0cH,0d0H
DB 020H,042H,06H,08H,010H,020H,040H,080H ;形
DB 00H,00H,00H,03fH,020H,020H,020H,03eH
DB 022H,022H,022H,02aH,024H,040H,081H,00H
DB 080H,0a0H,090H,0fcH,080H,080H,084H,044H
DB 048H,048H,030H,020H,062H,092H,0aH,06H ;成
DB 00H,07fH,00H,00H,00H,01H,01H,01H
DB 01H,01H,01H,01H,01H,01H,05H,02H
DB 00H,0f8H,010H,020H,040H,080H,00H,00H
DB 00H,00H,00H,00H,00H,00H,00H,00H ;了
DB 01H,02H,04H,01fH,010H,010H,01fH,010H
DB 010H,010H,01fH,010H,010H,010H,01fH,010H
DB 00H,00H,010H,0f8H,010H,010H,0f0H,010H
DB 010H,010H,0f0H,010H,010H,010H,0f0H,010H ;自
DB 00H,00H,07fH,00H,00H,00H,00H,03fH
DB 020H,020H,020H,020H,020H,020H,01fH,00H
DB 00H,010H,0f8H,010H,010H,010H,010H,0f0H
DB 010H,00H,00H,00H,04H,04H,0fcH,00H ;己
DB 00H,044H,028H,010H,02bH,04aH,08aH,01aH
DB 02aH,04bH,0aH,08H,08H,08H,057H,020H
DB 040H,040H,040H,048H,0fcH,048H,048H,048H

DB 048H,0f8H,048H,040H,048H,078H,084H,04H ;独
DB 00H,0fH,08H,08H,0fH,08H,0fH,08H
DB 0fH,08H,08H,0ffH,04H,0cH,010H,020H
DB 020H,0f0H,020H,020H,0e0H,020H,0e0H,020H
DB 0e0H,020H,024H,0feH,040H,020H,018H,08H ;具
DB 010H,010H,050H,053H,07cH,090H,017H,018H
DB 030H,0d7H,011H,010H,010H,010H,010H,010H
DB 040H,040H,048H,0fcH,040H,044H,0feH,010H
DB 014H,0feH,010H,090H,090H,010H,050H,020H ;特
DB 04H,04H,07H,08H,08H,01fH,028H,048H
DB 08H,0fH,08H,08H,08H,08H,07H,00H
DB 00H,00H,0f0H,020H,048H,0fcH,088H,088H
DB 088H,0f8H,08H,00H,02H,02H,0feH,00H ;色
DB 010H,010H,022H,07fH,042H,043H,042H,042H
DB 07eH,042H,042H,042H,042H,07eH,042H,00H
DB 040H,040H,044H,07eH,084H,04H,04H,084H
DB 064H,024H,04H,04H,04H,04H,028H,010H ;的
DB 00H,00H,00H,00H,00H,00H,00H,0ffH
DB 00H,00H,00H,00H,00H,00H,00H,00H
DB 00H,00H,00H,00H,00H,00H,04H,0feH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;一
DB 00H,040H,037H,010H,080H,061H,027H,08H
DB 011H,021H,0e1H,021H,021H,021H,022H,024H
DB 080H,048H,0fcH,040H,090H,08H,0fcH,04H
DB 050H,050H,050H,050H,052H,052H,04eH,040H ;流
DB 010H,010H,010H,013H,0fcH,010H,010H,013H
DB 01aH,031H,0d1H,010H,010H,010H,051H,026H
DB 040H,040H,048H,0fcH,040H,040H,040H,0f8H
DB 08H,010H,010H,0a0H,040H,0b0H,0eH,04H ;技
DB 01H,01H,01H,01H,01H,0ffH,01H,03H
DB 05H,09H,011H,021H,0c1H,01H,01H,01H
DB 00H,040H,030H,010H,04H,0feH,00H,080H
DB 040H,020H,010H,0eH,04H,00H,00H,00H ;术
db 00H,00H,00H,00H,00H,00H,00H,00H
db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 00H,00H,00H,00H,00H,00H,00H,0ffH

DB 00H,00H,00H,00H,00H,00H,00H,00H
DB 00H,00H,00H,00H,00H,00H,04H,0feH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;一
DB 00H,040H,037H,010H,080H,061H,027H,08H
DB 011H,021H,0e1H,021H,021H,021H,022H,024H
DB 080H,048H,0fcH,040H,090H,08H,0fcH,04H
DB 050H,050H,050H,050H,052H,052H,04eH,040H ;流
DB 00H,03fH,020H,020H,03fH,020H,020H,02fH
DB 028H,028H,028H,028H,049H,042H,08cH,030H
DB 078H,080H,080H,084H,0feH,080H,088H,0fcH
DB 08H,088H,088H,088H,08H,070H,0cH,04H ;质
DB 00H,01fH,010H,01fH,010H,0ffH,00H,01fH
DB 011H,01fH,011H,01fH,01H,01fH,01H,07fH
DB 010H,0f8H,010H,0f0H,014H,0feH,00H,0f0H
DB 010H,0f0H,010H,0f0H,00H,0f0H,00H,0fcH ;量
db 00H,00H,00H,00H,00H,00H,00H,00H
db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 00H,00H,00H,00H,00H,00H,00H,0ffH
DB 00H,00H,00H,00H,00H,00H,00H,00H
DB 00H,00H,00H,00H,00H,00H,04H,0feH
DB 00H,00H,00H,00H,00H,00H,00H,00H ;一
DB 00H,040H,037H,010H,080H,061H,027H,08H
DB 011H,021H,0e1H,021H,021H,021H,022H,024H
DB 080H,048H,0fcH,040H,090H,08H,0fcH,04H
DB 050H,050H,050H,050H,052H,052H,04eH,040H ;流
DB 02H,03fH,022H,022H,022H,03eH,022H,022H
DB 022H,03eH,022H,022H,022H,022H,04aH,084H
DB 08H,0fcH,088H,088H,088H,098H,080H,0fcH
DB 0a4H,0a4H,0a8H,090H,0a8H,0a8H,0c6H,084H ;服
DB 08H,08H,0fH,018H,026H,041H,06H,01aH
DB 0e2H,01fH,02H,02H,04H,04H,08H,030H
DB 00H,00H,0f0H,020H,0c0H,00H,0c0H,030H
DB 0eH,0f4H,010H,010H,010H,010H,0a0H,040H ;务
db 00H,00H,00H,00H,00H,00H,00H,00H
db 03H,07H,06H,06H,07H,03H,00H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H

db 0C0H,0e0H,60H,60H,0e0H,0C0H,00H,00H ;juhao
DB 00H,00H,0fcH,04H,045H,046H,028H,028H
DB 010H,028H,024H,044H,081H,01H,02H,0cH
DB 080H,080H,080H,0fcH,04H,048H,040H,040H
DB 040H,040H,0a0H,0a0H,010H,08H,0eH,04H ;欢
DB 00H,041H,026H,014H,04H,04H,0f4H,014H
DB 015H,016H,014H,010H,010H,028H,047H,00H
DB 00H,084H,07eH,044H,044H,044H,044H,0c4H
DB 044H,054H,048H,040H,040H,046H,0fcH,00H ;迎
DB 04H,04H,07H,08H,014H,022H,01H,06H
DB 018H,0e0H,0fH,08H,08H,08H,0fH,08H
DB 00H,00H,0f0H,010H,020H,040H,080H,060H
DB 01eH,04H,0f0H,010H,010H,010H,0f0H,010H ;各
DB 00H,01fH,011H,011H,01fH,011H,011H,01fH
DB 02H,04H,0cH,034H,0c4H,04H,08H,010H
DB 010H,0f8H,010H,010H,0f0H,010H,010H,0f0H
DB 080H,060H,050H,04eH,044H,040H,040H,040H ;界
DB 02H,03fH,022H,022H,022H,03eH,022H,022H
DB 022H,03eH,022H,022H,022H,04aH,044H,081H
DB 04H,07eH,044H,044H,044H,07cH,044H,044H
DB 044H,07cH,044H,044H,044H,084H,094H,08H ;朋
DB 04H,04H,04H,0ffH,04H,04H,0fH,08H
DB 014H,012H,021H,040H,081H,06H,018H,060H
DB 00H,00H,04H,0feH,00H,00H,0f0H,010H
DB 020H,020H,040H,080H,040H,030H,0eH,04H ;友
DB 010H,012H,011H,024H,024H,064H,0a4H,024H
DB 024H,024H,024H,024H,024H,024H,024H,024H
DB 00H,04H,07eH,084H,04H,04H,04H,04H
DB 04H,04H,04H,04H,04H,04H,014H,08H ;们
DB 01H,01H,01H,07fH,01H,021H,019H,09H
DB 0ffH,03H,05H,09H,031H,0c1H,01H,01H
DB 00H,00H,08H,0fcH,00H,010H,030H,044H
DB 0feH,080H,040H,030H,01eH,04H,00H,00H ;来
DB 01H,01H,01H,01H,01H,01H,01H,02H
DB 02H,02H,04H,04H,08H,010H,020H,040H
DB 00H,00H,00H,00H,00H,00H,00H,080H
DB 080H,080H,040H,040H,020H,010H,0eH,04H ;人
DB 01H,01H,01H,07fH,01H,021H,019H,09H

DB 0ffH,03H,05H,09H,031H,0c1H,01H,01H
DB 00H,00H,08H,0fcH,00H,010H,030H,044H
DB 0feH,080H,040H,030H,01eH,04H,00H,00H ;来
DB 00H,01fH,00H,00H,041H,051H,049H,045H
DB 041H,045H,049H,051H,045H,042H,07fH,040H
DB 00H,0f0H,020H,040H,084H,014H,034H,044H
DB 04H,044H,034H,014H,04H,04H,0fcH,04H ;函
DB 00H,00H,03fH,01H,01H,07fH,09H,09H
DB 0ffH,09H,09H,07fH,01H,01H,03fH,00H
DB 010H,078H,080H,00H,08H,0fcH,020H,024H
DB 0feH,020H,028H,0fcH,00H,010H,0f8H,00H ;垂
DB 02H,042H,033H,014H,04H,09H,0f1H,011H
DB 011H,011H,011H,013H,015H,018H,010H,00H
DB 00H,04H,0feH,04H,04H,0f4H,014H,014H
DB 0f4H,014H,014H,0f4H,014H,04H,014H,08H ;询
db 00H,00H,00H,00H,00H,00H,00H,00H
db 01H,03H,03H,01H,00H,01H,02H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 080H,0c0H,0c0H,0c0H,80H,00H,00H,00H ;douhao
DB 00H,00H,04H,04H,08H,08H,011H,021H
DB 0c2H,02H,04H,08H,010H,01fH,00H,00H
DB 00H,080H,080H,040H,040H,020H,010H,0eH
DB 04H,00H,00H,040H,020H,0f0H,010H,00H ;公
DB 00H,03fH,00H,00H,0ffH,00H,00H,03fH
DB 020H,020H,020H,020H,03fH,020H,00H,00H
DB 08H,0fcH,08H,048H,0e8H,08H,088H,0c8H
DB 088H,088H,088H,088H,088H,088H,028H,010H ;司
DB 00H,03fH,021H,022H,02fH,028H,02fH,028H
DB 02fH,020H,044H,089H,09H,028H,028H,047H
DB 08H,0fcH,00H,08H,0fcH,08H,0f8H,08H
DB 0f8H,080H,090H,088H,00H,094H,012H,0f2H ;愿
DB 020H,013H,012H,0ffH,02H,04bH,048H,049H
DB 04aH,054H,012H,01eH,0e2H,043H,00H,00H
DB 08H,0fcH,08H,0f8H,08H,0f8H,080H,04H
DB 0feH,044H,044H,0a4H,04H,0e4H,028H,010H ;竭
DB 00H,040H,020H,027H,04H,04H,0e4H,027H
DB 024H,024H,024H,02eH,035H,024H,08H,010H
DB 020H,028H,024H,0feH,020H,020H,024H,0a4H

```

DB 0a8H,0a8H,090H,090H,030H,04aH,08aH,06H ;减
DB 00H,010H,0cH,04H,00H,0ffH,01H,01H
DB 02H,02H,04H,08H,010H,020H,040H,00H
DB 080H,080H,080H,080H,084H,0feH,04H,04H
DB 04H,084H,064H,024H,04H,04H,028H,010H ;为
DB 09H,09H,013H,012H,034H,059H,091H,012H
DB 014H,011H,010H,02H,051H,050H,090H,0fH
DB 00H,00H,0fcH,04H,048H,040H,050H,04cH
DB 044H,040H,080H,00H,084H,092H,012H,0f0H ;您
DB 02H,03fH,022H,022H,022H,03eH,022H,022H
DB 022H,03eH,022H,022H,022H,022H,04aH,084H
DB 08H,0fcH,088H,088H,088H,098H,080H,0fcH
DB 0a4H,0a4H,0a8H,090H,0a8H,0a8H,0c6H,084H ;服
DB 08H,08H,0fH,018H,026H,041H,06H,01aH
DB 0e2H,01fH,02H,02H,04H,04H,08H,030H
DB 00H,00H,0f0H,020H,0c0H,00H,0c0H,030H
DB 0eH,0f4H,010H,010H,010H,010H,0a0H,040H ;务
db 00H,00H,00H,00H,00H,00H,00H,00H
db 03H,07H,06H,06H,07H,03H,00H,00h
db 00H,00H,00H,00H,00H,00H,00H,00H
db 0C0H,0e0H,60H,60H,0e0H,0C0H,00H,00H ;juhao
db 00H,00H,00H,00H,00H,00H,00H,00H
db 00H,00H.00H.00H.00H.00H.00H.00H.00H

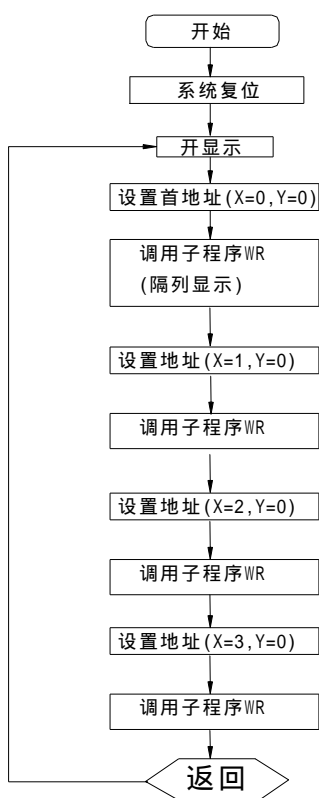
```

```

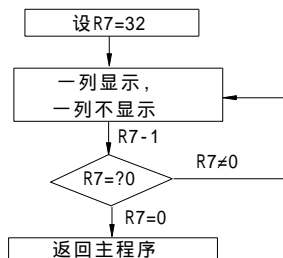
db 00H,00l
db 00H,00l
db 00H,00l
db 00H,00l
db 00H,00l
db 00H,00l

```

end
其程序框图如



子程序WR流程图：



6. 质量等级

6-1. 检验条件

6-1-1. 检验的环境条件如下：

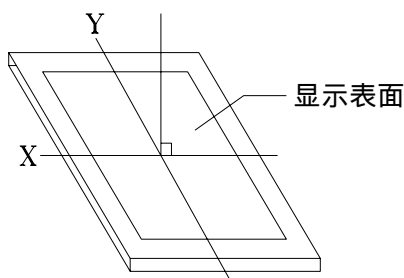
室内温度： 20 ± 3

湿度： $65 \pm 20\% \text{ RH}$

6-1-2. 外部视觉检验

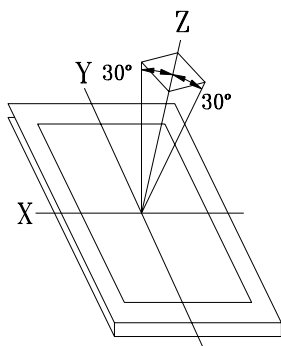
检验将使用一个 20W 的荧光灯作为照明并且检验者的眼睛距离 LCD 模块应该大于 30cm。

6-1-3 (1) 照亮方法



荧光灯垂直于显示表面

(2) 检验距离及角度



从Z轴起X, Y轴 $\phi = 30^\circ$, 距离 $30 \pm 5\text{cm}$ 范围内检验。

6-2. 可接受的取样程序列表

缺点类型	取样程序	AQL
主要缺陷	MIL-STD-105D 检验等级 I 常规检验 个别样品检验	Q/ED-01-98(II)
次要缺陷	MIL-STD-105D 检验等级 I 常规检验	Q/ED-01-98(II)

个别样品检验

6-3. 缺点等级

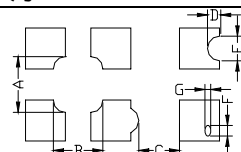
6-3-1. 主要缺陷：

主要缺陷指此缺陷需要降级使用。

6-3-2. 次要缺陷：

次要缺点指这种缺陷：虽然背离目前产品的标准，但是与产品的性能无关，可忽略。

6-4. 检验标准

项目	检验标准	缺陷类型																					
1) 显示检查	(1) 不显示 (2) 垂直列缺少 (3) 平行缺少 (4) 交叉行缺少	主要																					
2) 黑 / 白污点	<table border="1"> <thead> <tr> <th>尺寸 (mm)</th> <th>可接受的数量</th> </tr> </thead> <tbody> <tr> <td>0.3</td> <td>忽略(note)</td> </tr> <tr> <td>0.3 < 0.45</td> <td>3</td> </tr> <tr> <td>0.45 < 0.6</td> <td>1</td> </tr> <tr> <td>0.3 <</td> <td>0</td> </tr> </tbody> </table> <p>(Note)不允许集中 4 个或更多的污点</p>	尺寸 (mm)	可接受的数量	0.3	忽略(note)	0.3 < 0.45	3	0.45 < 0.6	1	0.3 <	0	次要											
尺寸 (mm)	可接受的数量																						
0.3	忽略(note)																						
0.3 < 0.45	3																						
0.45 < 0.6	1																						
0.3 <	0																						
3) 黑 / 白行	<table border="1"> <thead> <tr> <th>长度(mm)</th> <th>宽度(mm)</th> <th>可接受的数量</th> </tr> </thead> <tbody> <tr> <td>L 10</td> <td>W 0.03</td> <td>忽略</td> </tr> <tr> <td>5.0 L 10</td> <td>0.03 < W 0.04</td> <td>3</td> </tr> <tr> <td>5.0 L 10</td> <td>0.04 < W 0.05</td> <td>2</td> </tr> <tr> <td>1.0 L 10</td> <td>0.05 < W 0.06</td> <td>2</td> </tr> <tr> <td>1.0 L 10</td> <td>0.06 < W 0.08</td> <td>1</td> </tr> <tr> <td>L 10</td> <td>0.08 < W</td> <td>下一项第 2) 条缺点</td> </tr> </tbody> </table> <p>缺陷间距要大于 20mm</p>	长度(mm)	宽度(mm)	可接受的数量	L 10	W 0.03	忽略	5.0 L 10	0.03 < W 0.04	3	5.0 L 10	0.04 < W 0.05	2	1.0 L 10	0.05 < W 0.06	2	1.0 L 10	0.06 < W 0.08	1	L 10	0.08 < W	下一项第 2) 条缺点	次要
长度(mm)	宽度(mm)	可接受的数量																					
L 10	W 0.03	忽略																					
5.0 L 10	0.03 < W 0.04	3																					
5.0 L 10	0.04 < W 0.05	2																					
1.0 L 10	0.05 < W 0.06	2																					
1.0 L 10	0.06 < W 0.08	1																					
L 10	0.08 < W	下一项第 2) 条缺点																					
4) 显示图案	 <p>[单位: mm]</p> <table border="1"> <tbody> <tr> <td>$\frac{A+B}{2}$ 0.45</td> <td>$0 < C$</td> <td>$\frac{D+E}{2}$ 0.35</td> <td>$\frac{F+G}{2}$ 0.35</td> </tr> </tbody> </table> <p>Note: 1) 最多可接受 3 个缺点 2) 每四分之三英寸内不允许有两个或更多的针孔</p>	$\frac{A+B}{2}$ 0.45	$0 < C$	$\frac{D+E}{2}$ 0.35	$\frac{F+G}{2}$ 0.35	次要																	
$\frac{A+B}{2}$ 0.45	$0 < C$	$\frac{D+E}{2}$ 0.35	$\frac{F+G}{2}$ 0.35																				
5) 对比度不规则的点	<table border="1"> <thead> <tr> <th>尺寸 (mm)</th> <th>可接受的数量</th> </tr> </thead> <tbody> <tr> <td>0.7</td> <td>忽略(note)</td> </tr> <tr> <td>0.7 < 1.0</td> <td></td> </tr> <tr> <td>1.0 < 1.5</td> <td>1</td> </tr> <tr> <td>1.5 <</td> <td>0</td> </tr> </tbody> </table> <p>Note: 1) 与样品一致</p>	尺寸 (mm)	可接受的数量	0.7	忽略(note)	0.7 < 1.0		1.0 < 1.5	1	1.5 <	0	次要											
尺寸 (mm)	可接受的数量																						
0.7	忽略(note)																						
0.7 < 1.0																							
1.0 < 1.5	1																						
1.5 <	0																						

2) 缺点间距要大于 30mm

	尺寸 (mm)	可接受的数量	
	0.4	忽略(note)	
6) 偏光片针眼	0.4< 0.65	2	次要
	0.65< 1.2	1	
	1.2<	0	
7) 偏光片凹痕和擦痕	偏光片上的凹痕和擦痕要求应该同“2)黑/白污点 3) 黑/白行”一致。		次要
8) LCD 表面污点	即使用软布或类似的清洁物轻轻擦拭也擦不掉。		次要
9) 彩虹	在对比度最合适的情况下，不允许在视域内有彩虹。		次要
10) 视窗缺陷	由于偏光片小或密封圈大，使其暴露在视窗内。		次要
11) 铁框外观	在铁框的可见范围内不允许有铁锈和深度的划伤。		次要
12) 基板缺点	不能有明显的裂痕。		次要
13) 部件装配	(1) 装配部件失败 (2) 装配了不符合规范的部件 (3) 比如：极性颠倒，HSC 或 TCP 脱落		主要
14) 部件定位	(1) LSI, IC 管脚宽度大于焊盘宽度 50% (2) LSI, IC 管脚定位偏离焊盘超过 50%		次要
15) 焊接缺陷	(1) 0.45< , N 1		主要
	(2) 0.3< 0.45, N 1 : 焊球的平均直径(unit: mm)		次要
	(3)0.5<L, N 1 L: 焊接片的平均长度(unit: mm)		次要
16) PCB 板损伤	(1) PCB 铜铂走线严重损伤，几乎断开。		主要
	(2) 铜铂走线轻度损伤。		次要
17) PCB 修理	(1) 由于 PCB 板铜铂线断开，每片 PCB 上有 2 处或更多处使用明线连接修补。		次要
	(2) 短路部分被划开。		
18) 框架爪	框架爪缺少或弯曲		次要
19) 喷码标识	(1) 标志或标签错误或不清楚。		次要
	(2) 缺少 1 / 3 以上的标识。		

7.可靠性

7-1. 寿命

50,000 小时(25 室内没有太阳照射)

7-2. 可靠性项目

项目	条件	标准
1) 高温操作	60 96hrs	外观无变化，对比度与初始值不会相差 ± 10%。 总电流消耗不会超过初始值的 2 倍。
2) 低温操作	-20 96hrs	
3) 湿度	40 , 90%RH, 96hrs	外观无变化，对比度与初始值不会相差 ± 20%。 总电流消耗不会超过初始值的 2 倍。
4) 高温	70 96hrs	
5) 低温	-30 96hrs	
6) 热冲击	25 30 25 70	
	5(min) 30(min) 5(min) 30(min) 5 cycle, 55~60%RH	
7) 振动	10~55~10hz amplitude: 1.5mm 2hrs for each direction	外观和性能无变化。 总电流消耗不会超过初始值的 2 倍。

8.生产注意事项

8-1. 装配方法

大连东福彩色液晶显示器有限公司设计开发的 LCD 模块，其 LCD 面板是由二块贴有偏光片的薄玻璃组成，非常容易被损坏。由于模块是这种结构，安装是要用线路板上的定位孔。拿 LCD 模块时需格外小心。

8-2. 谨慎处理和清洁 LCD

当清洁 LCD 表面时，使用沾有[下列推荐]溶剂的软布轻轻的擦拭。

- 异丙醇

不能使用干的或硬的布料擦拭 LCD 表面，那将会伤害偏光片的表面。

不能使用下列的溶剂:

- 水
- 酒精
- 乙烯酮
- 芬芳溶剂

8-3. 防静电措施

LCD 模块使用 C-MOS LSI 驱动，因此我们建议你：

将不用的输入端连接到 Vdd 或 Vss 上，开电前不要输入任何信号，工作区、工具及操作者身体都需接地，以防静电。

8-4. 包装

- 对于模块应同对待 LCD 一样，避免从高处落下，受到强烈的震动。
- 防止模块老化，模块不能在有阳光直接照射或高温 / 高湿度条件下操作或储存。

8-5. 谨慎操作

- 在指定的限制电压下驱动 LCD 模块，因为电压超出限制范围会缩短 LCD 模块的使用寿命。
由于使用直流电驱动 LCD 模块会产生化学反应使模块出现不应该的退化，因此避免用直流电驱动 LCD 模块。
- 当温度低于操作温度范围时，响应时间将被延迟，另一方面工作温度过高，模块显示发黑。但是这些现象并不意味着模块本身有故障，在指定的操作温度下模块又会恢复正常。

8-6. 储存

如打算长期储存，推荐以下方法。

- 放在一个不漏气的密封聚乙烯袋中，不用放干燥剂。
- 放置在一个没有阳光直接照射，且满足储存温度范围的黑地方。
- 储存时不允许有东西碰到偏光片表面。

8-7. 安全

- 将已损坏的或不要的 LCD 敲成碎片，并用异丙醇洗刷掉液晶，然后把它烧掉。
- 当手接触破损的玻璃渗漏出的液晶时，请尽快用水将其洗掉。

9.使用注意事项

9-1. 当双方认为有必要时，双方各提供一个样品。

样品经双方证实后，判断才有效。

9-2. 在以下场合中，双方共同讨论来解决问题：

- 这种规范中出现问题时。
- 在这规范中没有指明的问题出现时。
- 当用户的检查条件和工作条件改变，产生了新问题时。
- 从客户的角度评估，认为产生了新的问题时。