PRODUCT : LCD MODULE

SUPPLIER : TRULY SEMICONDUCTORS LTD.

CERT. No. QAC0946535 (ISO9001)

CERT. No. HKG002005 (ISO14001)

TFT8001280-12-E
APPLICATION NOTE

This application note is only for reference and maybe changed without any notice .
Please contact TRULY R&D department for update files and product status before design for this product or release the order.

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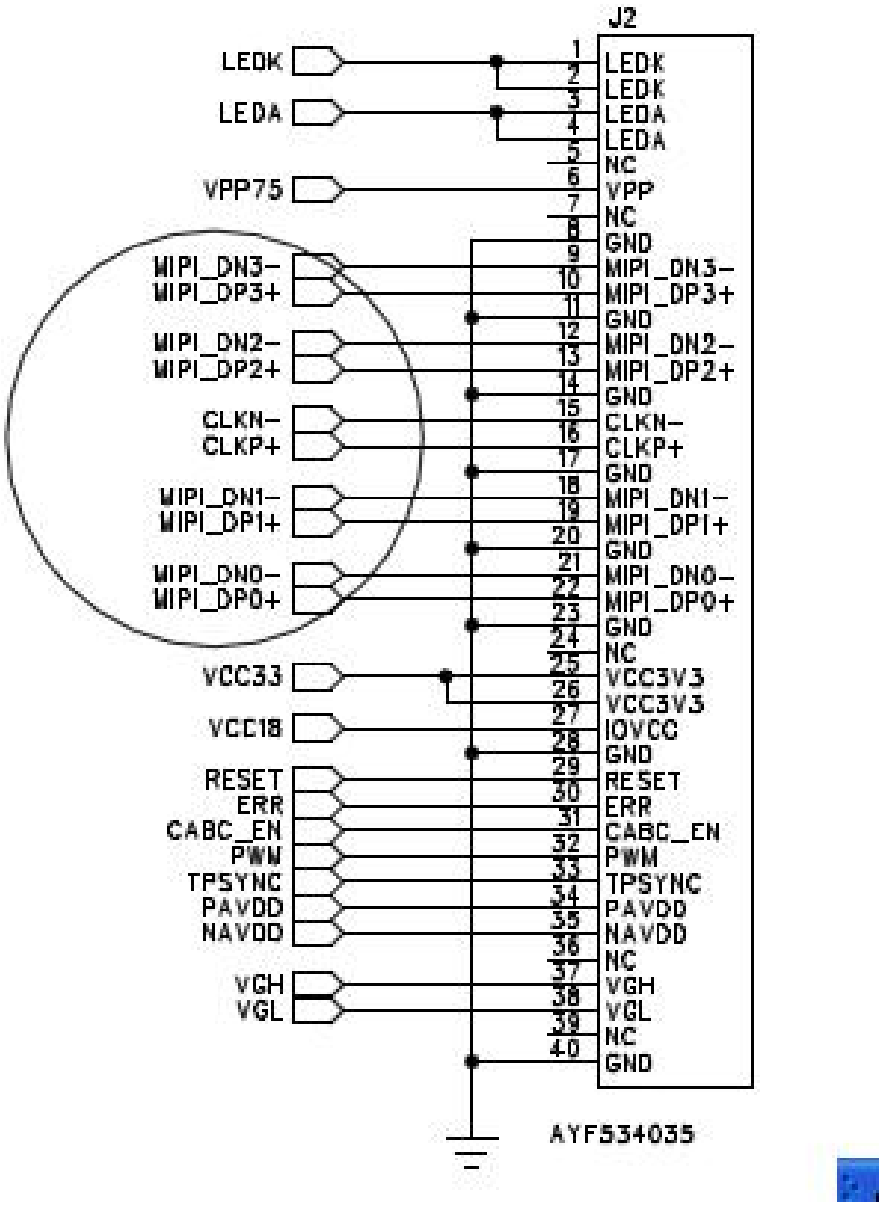
n APPLICATION CIRCUIT



n LCD POWER

VCC3V3=3.3V,IOVCC=1.8V

VGH=17V,VGL=-10V,PVDD=4.6V,NVDD=-4.75V

■ **INTERFACE DESCRIPTION**

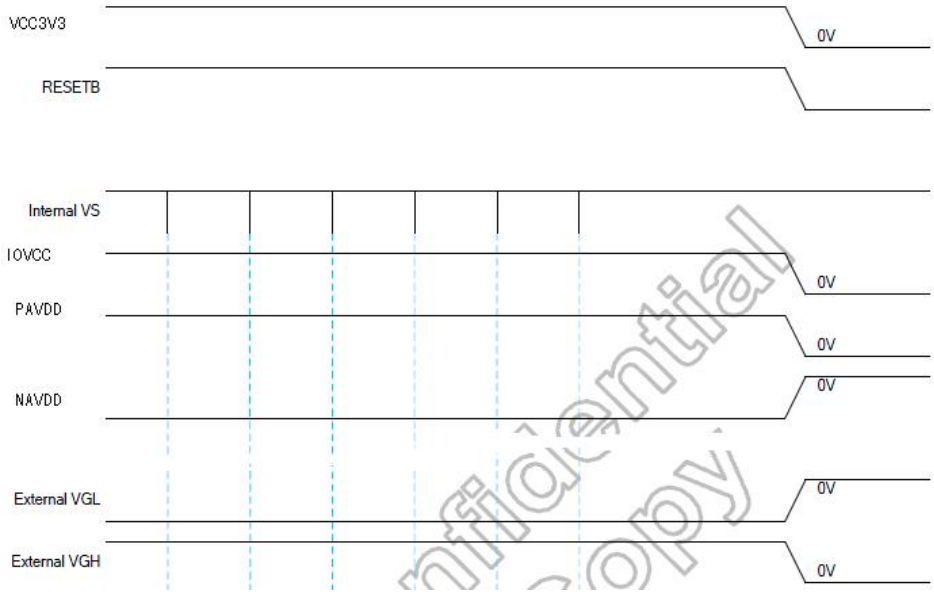
接口定义描述

Interface NO. 接口序号	Symbol 符号	I/O or connect to 输入/出 或连接到	Description 描述	When not in use 不用时
1	LEDK	LED DRIVER	LED cathode	OPEN
2	LEDK	LED DRIVER	LED cathode	OPEN
3	LEDA	LED DRIVER	LED light,anode.	OPEN
4	LEDA	LED DRIVER	LED light,anode.	OPEN
5	NC	-	No connection	OPEN
6	VPP	P	External High voltage input for external OTP data program.	Open or Fix to I0VCC
7	NC	-	No connection	OPEN
8	GND	P	Ground	-
9	MIPI_D3N-	I	MIPI data input pin	-
10	MIPI_D3P+	I	MIPI data input pin	-
11	GND	P	Ground	-
12	MIPI_D2N-	I	MIPI data input pin	-
13	MIPI_D2P+	I	MIPI data input pin	-
14	GND	P	Ground	-
15	CLKN-	I	MIPI clock input pin	-
16	CLKP+	I	MIPIclock input pin	-
17	GND	P	Ground	-
18	MIPI_D1N-	I	MIPI data input pin	-
19	MIPI_D1P+	I	MIPI data input pin	-
20	GND	P	Ground	-
21	MIPI_D0N-	I	MIPI data input pin	-
22	MIPI_D0P+	I	MIPI data input pin	-
23	GND	P	Ground	-
24	NC	-	No connection	OPEN
25	VCC3V3	P	Power Supply, 3.3V(Typical)	-
26	VCC3V3	P	Power Supply, 3.3V(Typical)	-
27	IOVCC	P	Power supply to the I/O..1.8V(Typical)	-
28	GND	P	Ground	-
29	RESET	I	This signal is used to reset the device and must be applied to initialize the chip properly	-
30	ERR	-	MIPI mode (IF_SEL=1): ERR report	OPEN
31	CABC_EN	-	ON/OFF LED Backlight driver	OPEN
32	PWM	-	CABC PWM output	OPEN
33	TPSYNC	-	TPSYNC output signal	OPEN
34	PAVDD	P	Power Supply	-
35	NAVDD	P	Power Supply	-
36	NC	-	No connection	OPEN
37	VGH	P	Power Supply	-
38	VGL	P	Power Supply	-
39	NC	-	No connection	OPEN
40	GND	P	Ground	-

nPower ON/OFF Sequence

Power on sequence

Power off sequence



n Reset Timming

13.6 Timing requirements for RESETB

When RESETB of the reset pin equals to Low, it will be in the condition of reset. When it is in the condition of reset, it will make the device recover the initial set.

However, in order to avoid the reset noise cause reset, there is a mechanism to judge about whether the reset is needed or not.

The closed interval of Low can be shown as the following.

(VDDIO=1.65V~3.6V, VSS=0V, T_A=-20℃~+85℃)

Parameter	Symbol	Condition	Spec. Min.	Spec. Typ.	Spec. Max.	Unit
Reset low pulse width	Trst	-	20	-	-	μs

Table 13.6: Reset timing

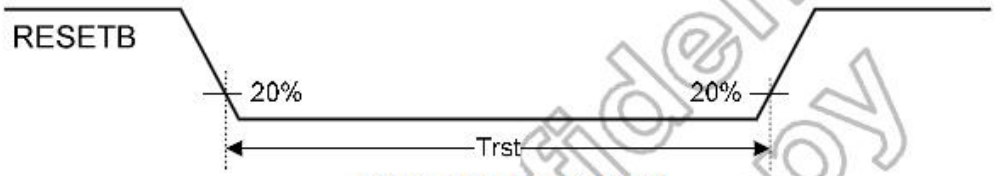


Figure 13.5: Reset timing

n INITIAL CODE

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#if 1
    {0x23, 0, 0, 0, 0, 2 , {0xB0,0x04}},
    {0x05, 0, 0, 0, 0, 1 , {0x00}},
    {0x05, 0, 0, 0, 0, 1 , {0x00}},
    {0x29, 0, 0, 0, 0, 7 , {0xB3,0x14,0x00,0x00,0x00,0x00,0x00}},

    {0x29, 0, 0, 0, 0, 3 , {0xB6,0x3A,0xC3}},
    {0x23, 0, 0, 0, 0, 2 , {0xC0,0x00}},

    {0x29,0,0,0,0,35  ,{0xC1,0x84,0x60,0x10,0xEB,0xFF,0x6F,0xCE,0xFF,0xFF,0x17,0x12,0x58,
0x73,0xAE,0x31,0x20,0xC6,0xFF,0xFF,0x1F,0xF3,0xFF,0x5F,0x10,0x10,
                                        0x10,0x10,0x00,0x62,0x01,0x22,0x22,0x00,0x01}},


    {0x29, 0, 0, 0, 0, 8 , {0xC2,0x31,0xF7,0x80,0x06,0x08,0x80,0x00}},


    {0x29, 0, 0, 0, 0, 4 , {0xC3,0x01,0x00,0x00}},
    {0x29,0,0,0,0,23,{0xC4,0x70,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x0C,0x06,
0x00, 0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x0C,0x06}},


    {0x29,0,0,0,0,41 ,{0xC6,0xC8,0x08,0x67,0x08,0x67,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0
x00,0x00, 0x00,0x00,0x00,0x00,0x16,0x18,0x08,0xC8,0x08,0x67,0x08,0x67,0x00,0x00,
0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x00,0x16,0x18,0x08}},


    {0x29,0,0,0,0,31 ,{0xC7,0x00,0x0D,0x19,0x23,0x30,0x3C,0x47,0x57,0x3C,0x44,0x50,
0x60,0x68,0x70,0x75,0x00,0x0D,0x19,0x23,0x30,0x3C,0x47,0x57,0x3C,0x44,0x50,0x60,
0x68,0x70,0x75}},


    {0x29,0,0,0,0,20  ,{0xC8,0x00,0x00,0x00,0x00,0x00,0xFC,0x00,0x00,0x00,0x00,0x00,
0xFC,0x00, 0x00,0x00,0x00,0x00,0xFC,0x00}},


    {0x29, 0, 0, 0, 0, 9 , {0xCB,0x31,0xFC,0x3F,0x8C,0x00,0x00,0x00,0x00}},


    {0x23, 0, 0, 0, 0, 2 , {0xCC,0x0B}},
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    {0x29, 0, 0, 0, 0, 11 , {0xD0,0x11,0x81,0xBB,0x19,0x99,0x4C,0x19,0x19,0x0C,0x00}},


    {0x29,0,0,0,0,26  ,{0xD3,0x1B,0x33,0xBB,0xBB,0xB3,0x33,0x33,0x33,0x01,0x01,0x0
0,0xA0,0xD8,0xA0,0x0D,0x5E,0x5E,0x44,0x3B,0x22,0x72,0x07,0x3D,0xBF,0x33}},


    {0x29, 0, 0, 0, 0, 8 , {0xD5,0x06,0x00,0x00,0x01,0x3A,0x01,0x3A}},
    {0x29, 0, 0, 0, 0, 8 , {0xD5,0x06,0x00,0x00,0x01,0x3A,0x01,0x3A}},

    {0x05, 0, 0, 0, 0, 1 , {0x29}},
    {0x05, 0, 0, 0, 200, 1, {0x11}},
#endif
```