

Hunan Huayuan display technology CO.,LTD

GH12864-2001

STN DOTS LCD MODULE

SPECIFICATION

Standard code	Department	Rev No.
	R&D	A/0
Checked by	Written by	Date
		2015-02

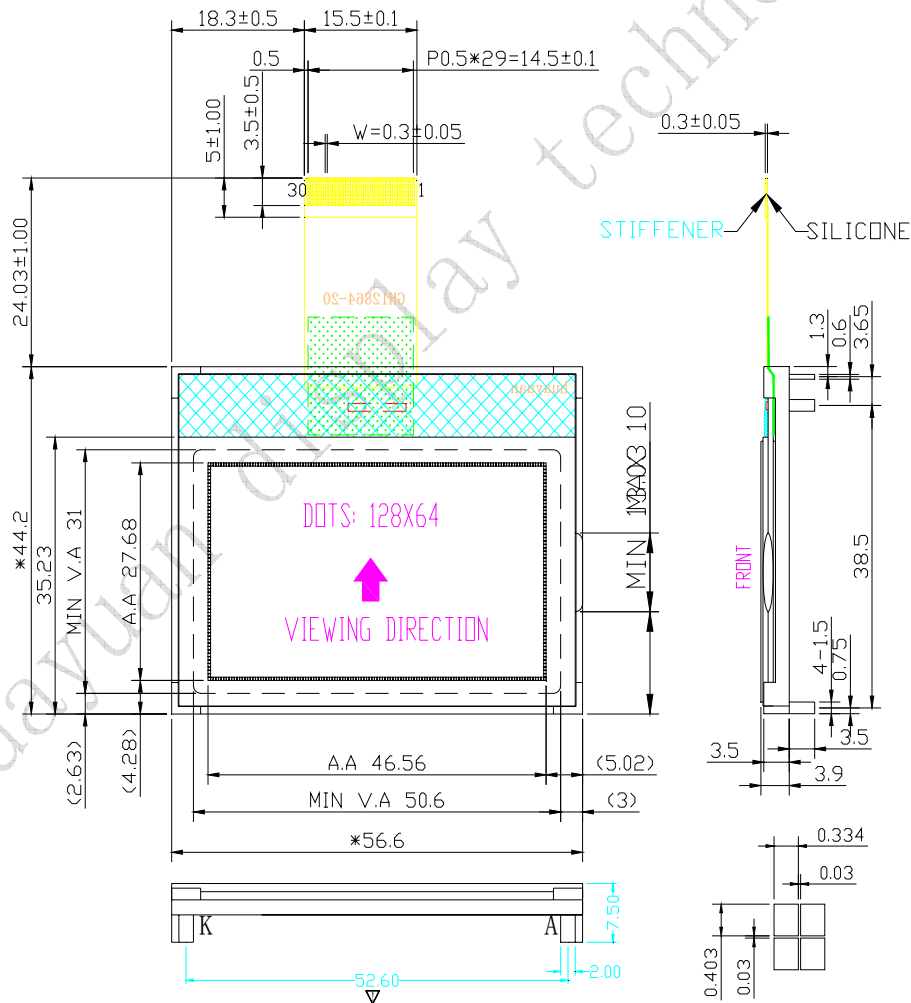
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1、 GENERAL SPECIFICATIONS

Screen size	6.0"(Diagonal)
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Display color	Display color: White Background color: Blue
Type	STN
View angle direction	6'clock
Driver mode	1/64 DUTY 1/9 BIAS
Backlight	LED
Controller IC	UC1601
Data bus	8 bit
Temperature range	Operation: -20°C ---- +70°C Storage: -30°C ---- +80°C
Number of Dots	128 x 64
Dot size	0.39 x 0.55mm
Dot pitch	0.44 x 0.60mm
Viewing size	50.6 x 31.0mm
Active area	46.56 x 27.68mm
Outline dimension	44.2 x 56.6 x 7.5mm Max.

2、 EXTERNAL DIMENSIONS



3、 ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Type	Max	Unit
Supply voltage for logic	$V_{DD}-V_{SS}$	3.1	3.3	3.5	V
Supply Voltage for LCD Driving	$V_{DD}-V_{ADJ}$	Ta=0	-	-	
		Ta=25	-	-9.2	
		Ta=50	-	-	
Input Voltage	V_{IH}	0.8 V_{DD}	-	$V_{DD}+0.3$	
	V_{IL}	0	-	0.2 V_{DD}	
LCM Operating Current	I_{DD}	-	1	3	mA
Supply Current for LED	I_{LED}	-	50	60	
Supply Current for LCD	I_{EE}	-	3.0	-	

4、 ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min	Max	Unit	Remark
Supply voltage for logic	VDD-VSS	-0.3	7	V	
Supply Voltage for LCD Driving	VDD - V_{ADJ}	-	10		
Operating temperature	T_{OP}	-20	+70	°C	
Storage temperature	T_{ST}	-30	+80		

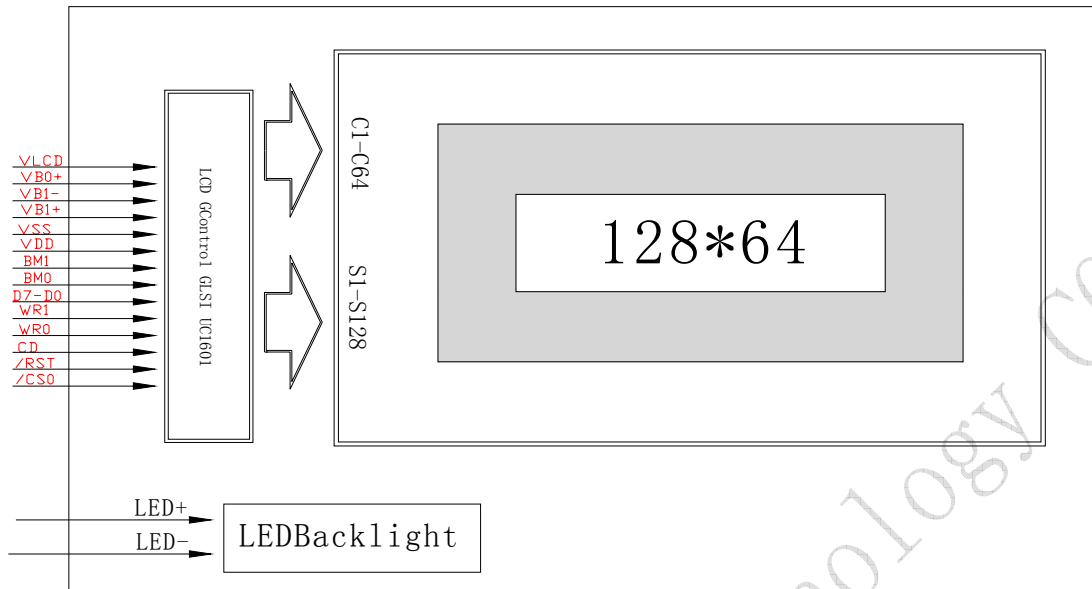
5、 OPTICAL CHARACTERISTICS

Item	Symbol	Condition	Typ.	Unit	Remark	
Viewing angle	$\varnothing f$	$C_R \geq 2$	40	Radian	$\varnothing f$	
	$\varnothing b$		30		$\varnothing b$	
	$\varnothing l$		30		$\varnothing l$	
	$\varnothing r$		30		$\varnothing r$	
Response time	T_R	$T_A = 25^\circ C$	120	ms		
	T_F		130			
Frame Frequency	F_{RM}			64	Hz	
Contrast ratio	C_R			6.0	-	

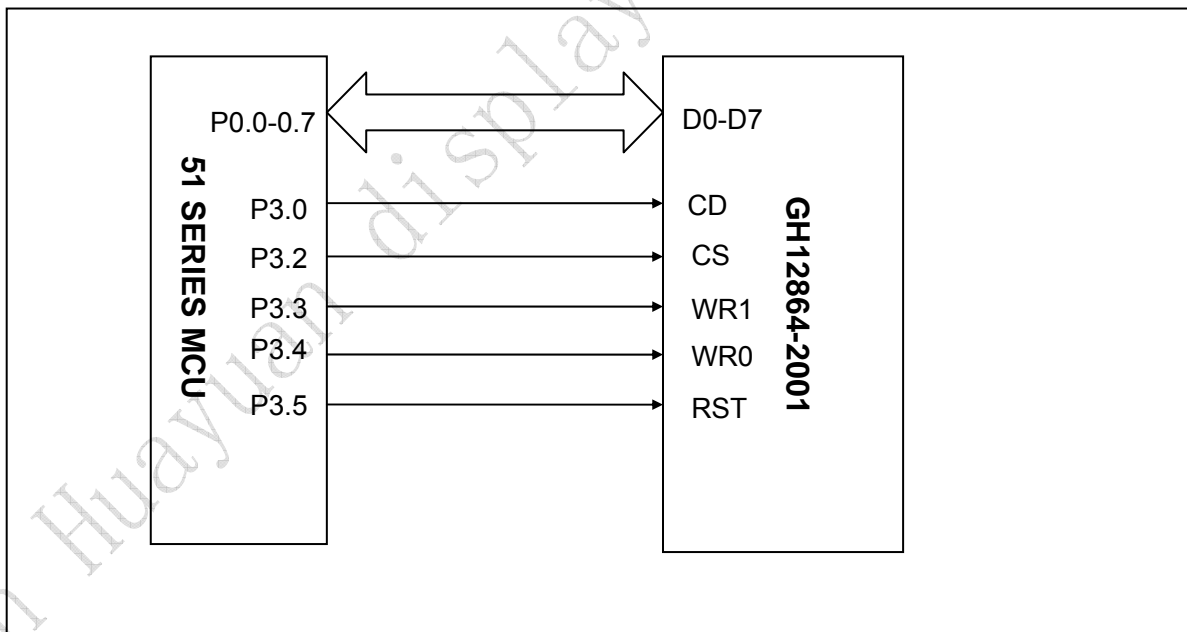
6、 INTERFACE DESCRIPTION

PIN	DESC	Function
1-4	NC	NO Connection
5	Vlcd	Power supply for LCD drive circuit
6	VB0+	LCD bias Voltages.
7	VB0-	LCD bias Voltages.
8	VB1-	LCD bias Voltages.
9	VB1+	LCD bias Voltages.
10	VSS	Ground
11	VDD	Power supply for Logic circuit and LCD
12	BM1	Host Interface set function
13	BM0	Host Interface set function
14-21	D7-D0	Display data signal
22	WR1	Read/write enable signal
23	WR0	Read/write select signal
24	CD	Signal to select registers
25	RST	Reset signal
26	/CS	Chip select signal
27-30	NC	NO Connection

7、 BLOCK DIAGRAM



8、 APPLICATION EXAMPLES



9、 RELIABILITY TEST

NO	Test Project	Test Condition	Remark
1	High temperature	60℃±2℃ 24H	After testing, the appearance and electrical performance deficiencies should not happen.
2	Low temperature	-20℃±2℃ 24H	
3	High temperature and humidity test	40℃±5℃×90%RH/24H	
4	Hot and cool shock test	-10℃±2→25℃→70℃±2 (30min) (5min) (30min) 10 cycles	
5	Vibration test	10Hz-50Hz-10Hz Amplitude 1.5mm X、Y、Z each 3H	

Remark:

1. Above test number is 2 piece.
 2. Do moistureproof test, should use the pure water (10M Ω resistor ").
 3. individual products caused by electrostatic discharge failure damage, if the products will be reset after the restore to the normal state as a good use.
- When the panel protective film LCM, Tear down the labels slowly (more than a second recommendation).
- 4 Please use the automatic switching menu (or scroll) test mode, test mode of operation.
 - 5 Suggestions Use the menu to adjust the contrast model.