

Hunan Huayuan display technology CO.,LTD

GH1602-2503

FSTN DOTS LCD MODULE

SPECIFICATION

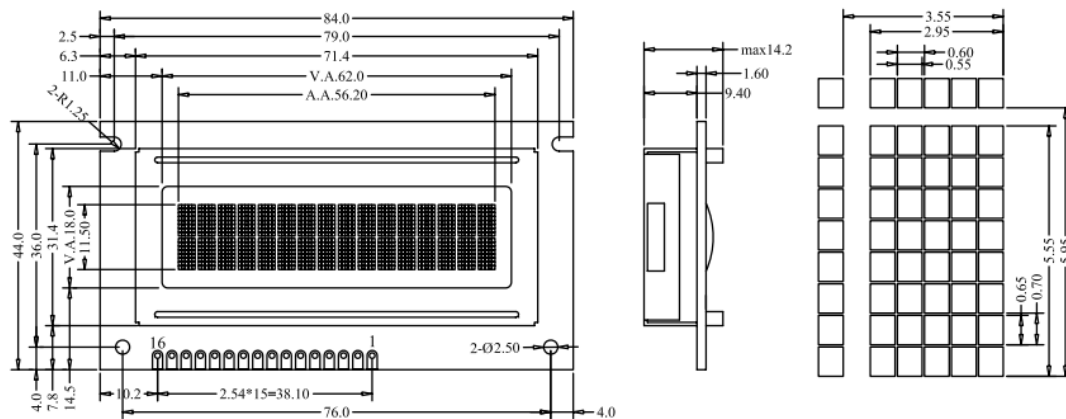
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1. **GENERAL SPECIFICATIONS**
2. **EXTERNAL DIMENSIONS**
3. **ELECTRICAL CHARACTERISTICS**
4. **ABSOLUTE MAXIMUM RATINGS**
5. **OPTICAL CHARACTERISTICS**
6. **INTERFACE DESCRIPTION**
7. **BLOCK DIAGRAM**
8. **APPLICATION EXAMPLES**
9. **RELIABILITY TEST**

1、 GENERAL SPECIFICATIONS

Screen size	2.5"(Diagonal)
Display color	Display color: White Background color: Grey
Type	FSTN
View angle direction	6'clock
Driver mode	1/64 DUTY 1/9 BIAS
Backlight	LED
Controller IC	7066/7065
Data bus	8 bit
Temperature range	Operation: -20 °C ---- +70 °C Storage: -30 °C ---- +80 °C
Number of Dots	16 x 2
Dot size	0.55 x 0.65mm
Dot pitch	0.60 x 0.70mm
Viewing size	62.0 x 18.0mm
Active area	56.2 x 11.5mm
Outline dimension	84.0 x 44.0 x 9.6mm Max.

2、 EXTERNAL DIMENSIONS



3、 ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Min	Type	Max	Unit
Supply voltage for logic	$V_{DD}-V_{SS}$	4.75	5.0	5.25	V
Supply Voltage for LCD Driving	$V_{DD}-V_{ADJ}$	Ta=0	-	-	
		Ta=25	-	-7	
		Ta=50	-	-	
Input Voltage	V_{IH}	2.2	-	V_{DD}	
	V_{IL}	0	-	0.6	
LCM Operating Current	I_{DD}	-	1.2	2.5	mA
Supply Current for LED	I_{LED}	-	25	40	
Supply Current for LCD	I_{EE}	-	1.0	-	

4、 ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Min	Max	Unit	Remark
Supply voltage for logic	$V_{DD}-V_{SS}$	-0.3	7	V	
Supply Voltage for LCD Driving	$V_{DD}-V_{ADJ}$	-	10		

Operating temperature	T _{OP}	-20	+70	°C	
Storage temperature	T _{ST}	-30	+80		

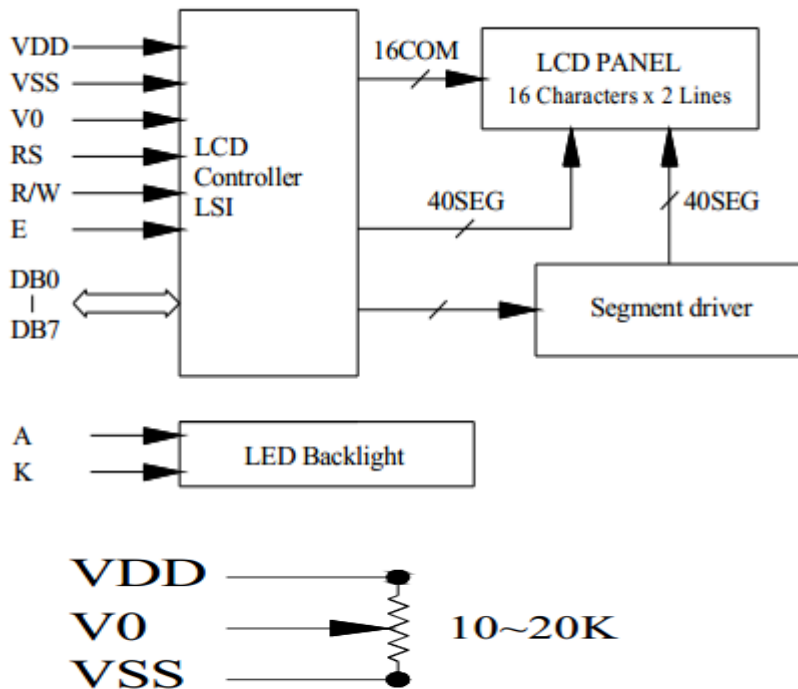
5、 OPTICAL CHARACTERISTICS

Item	Symbol	Condition	Typ.	Unit	Remark
Viewing angle	∅f	C _R ≥2	40	Radian	∅f
	∅b		30		∅b
	∅l		30		∅l
	∅r		30		∅r
Response time	T _R	TA=25 °C	120	ms	
	T _F		130		
Frame Frequency	F _{RM}		64	Hz	
Contrast ratio	C _R		6.0	-	

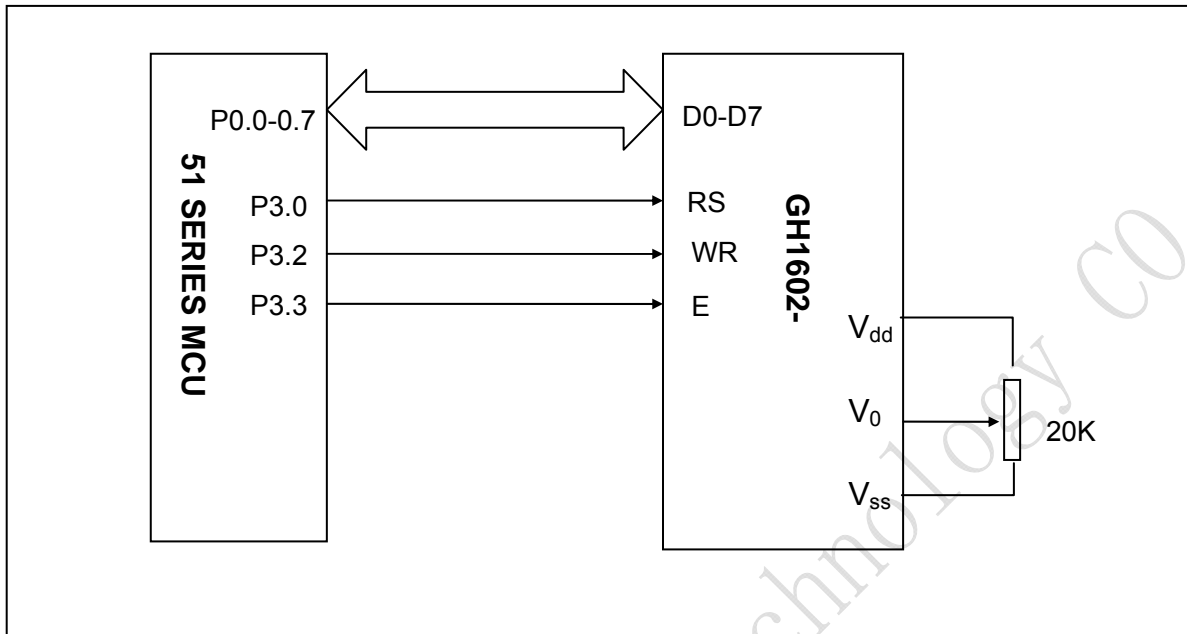
6、 INTERFACE DESCRIPTION

PIN	DESC	Function
1	A	backlight positive
2	K	backlight negative
3	VSS	GND(0V)
4	VDD	Supply Voltage for Logic(+5V)
5	V0	Power supply for LCD
6	RS	H: Data; L: Instruction Code
7	RW	H: Read; L: Write
8	E	Enable Signal
9-16	D0-D7	Data Bus Line

7、 BLOCK DIAGRAM



8、 APPLICATION EXAMPLES



9、 RELIABILITY TEST

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

		X、Y、Z each 3H	
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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.