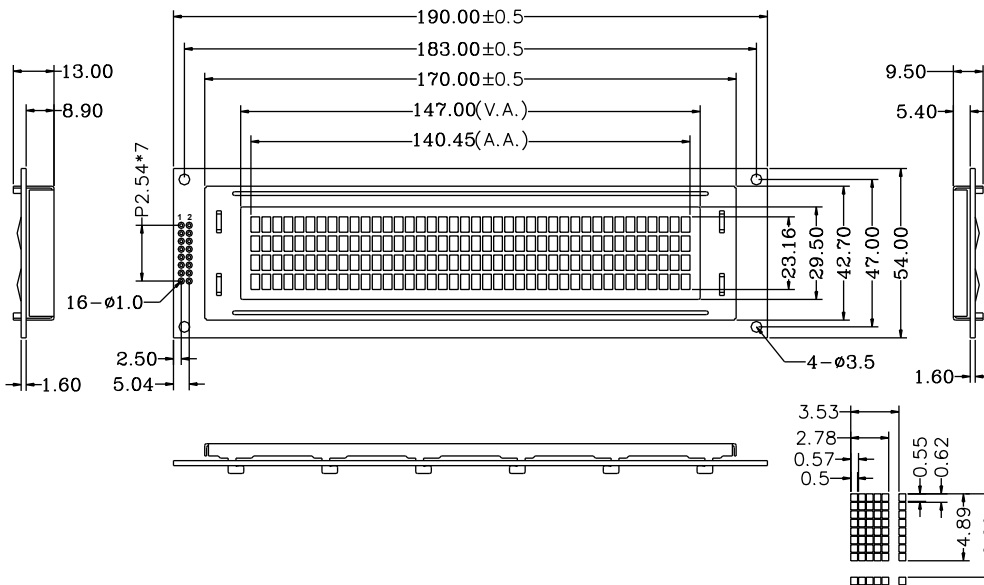


**Outline Dimension**



**Feature**

1. 5X8 dots with cursor
2. Display format:40 characters\*4 lines
3. Built-in controller:KS0066U or compatible
4. +5V power supply
5. 1/16duty, 1/5 bias cycle
6. STN;FSTN mode
7. Viewing direction: 6:00 or 12:00 o'clock

**Interface pin connections**

PIN NO	Symbol	Function
1	DB7	Four high order bi-directional three-state data bus lines.Used for data transfer between the MPU
2	DB6	
3	DB5	
4	DB4	
5	DB3	Four low order bi-directional three-state data bus lines.Used for data transfer between the MPU and the LCM.
6	DB2	
7	DB1	
8	DB0	
9	E1	Operation enable signal
10	R/W	Read/write select signal
11	RS	Register select signal
12	V0	Power supply
13	VSS	
14	VDD	
15	E2	Enable signal
16	NC	-

**Mechanical Data**

Item	Standard	Unit
Module dimension	190.0x54.0	mm
Viewing area	147.0x29.5	mm
Dot size	0.57x0.62	mm
Character size	2.78x4.89	mm

**Absolute Maximum Rating**

Item	Symbol	Standard			Unit
		Min	Typ	Max	
Power supply	VDD-VSS	-0.3	-----	7.0	V
Input voltage	VI	-0.3	-----	VDD+0.3	

**Electronical characteristics**

Item	Symbol	Condition	Standard			Unit
			Min	Typ	Max	
Input voltage	VDD	-----	4.5	5.0	5.5	V
		+3.3V	2.7	3.0	5.3	
Supply current	I <sub>DD</sub>	VDD=5V	-----	1.5	3.0	mA
Recommended LCD driving voltage for normal temp version module	VDD-V0	-20°C	-----	-----	-----	V
		0 °C	4.7	4.7	5.0	
		25°C	4.3	4.5	4.7	
		50°C	4.1	4.3	4.5	
		70°C	-----	-----	-----	
LED forward voltage	VF	25°C	-----	4.2	4.6	V
LED forward current	IF	25°C	-----	300	-----	mA
EL power supply current	I <sub>EL</sub>	V <sub>EL</sub> =110V AC 400Hz	-----	-----	-----	mA

**Display character address code:**

Display position  
 1 2 3 4 5 6 --- --- ---  
 DDRAM address 00 01 02 --- --- ---  
 DDRAM address 40 41 42 --- --- ---  
 40  
 27H  
 67H