

Standard Character LCD Module

PSM162D

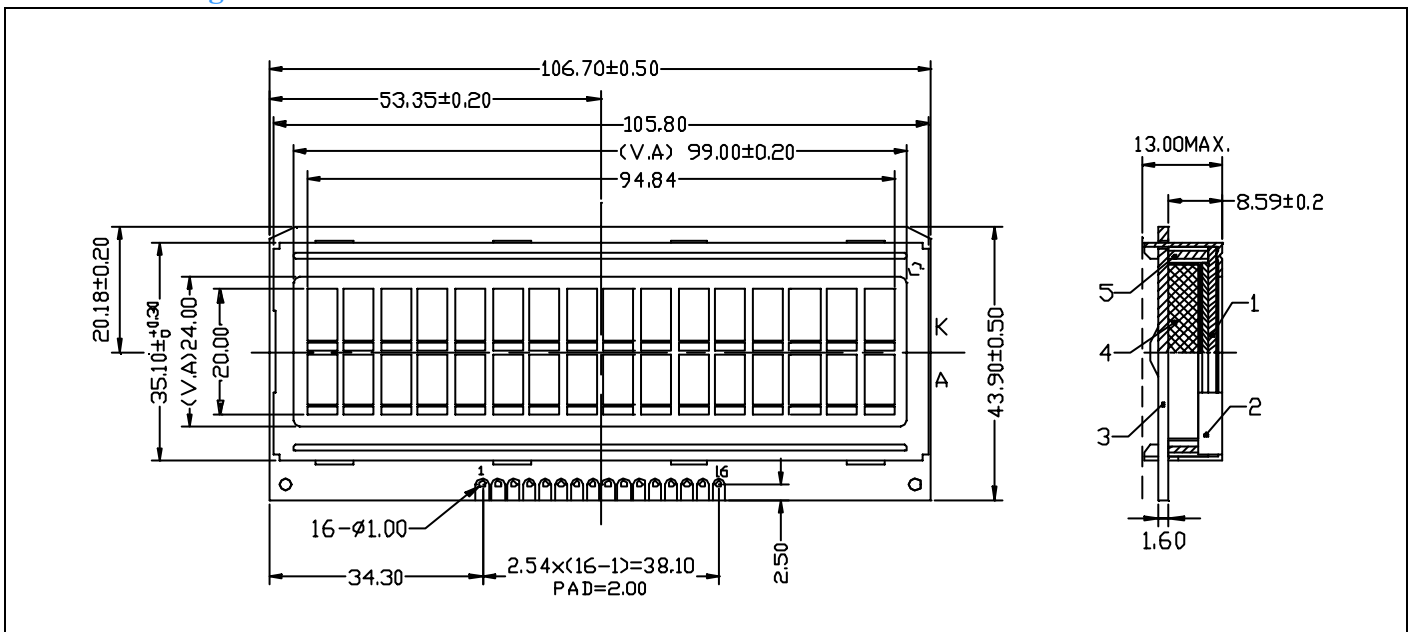
Feature

1. Display Format ( 16 x 2 )
2. 8-Bit parallel bus interface
3. Built-in LCD controller
4. Wide operating temperature range ( Option )
5. High contrast ratio and wide viewing angle
6. LED or EL Backlight ( Option )

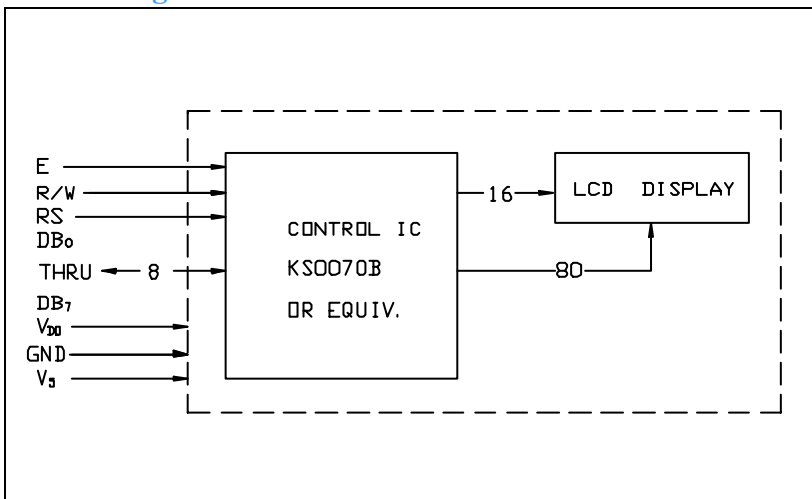


Mechanical Figure

Unit: mm

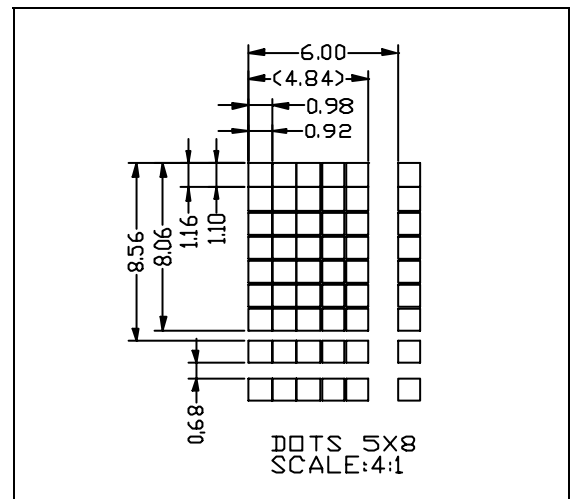


Block Diagram



Character Size

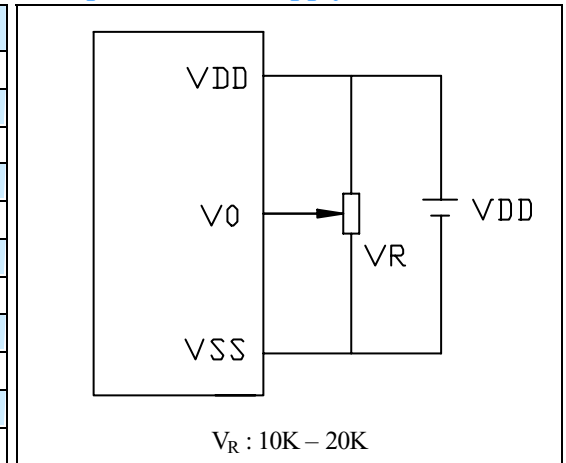
Unit: mm



## Specification

ITEM	Standard Value	Unit
Display Format	16 Character x 2 Lines	-
Module Dimension	106.7 (W)x 43.9 (H)x 13.0 (T)	mm
Viewing Area	99.0 (W)x24.0 (H)	mm
Dot Size	0.92(W)x1.10 (H)	mm
Display Fonts	5 x 7 Dots with cursor	-
Character Size	4.84(W)x9.66(H)	mm
Character Pitch	6.00 (W)x10.36(H)	mm
LCD Type	STN	
Driver Method	1/16 Duty , 1/4 Bias	
Viewing Direction	12 O'clock	
Controller IC	KS0070B (Equivalent)	

## Example of Power Supply



## Absolute Maximum Ratings

ITEM	Symbol	MIN.	TYP.	MAX.	Unit
Operating Temperature	$T_{op}$	-10	-	+60	°C
Storage Temperature	$T_{ST}$	-20	-	+70	°C
Input Voltage	$V_I$	-0.3	-	$V_{DD}+0.3$	V
Supply Voltage For Logic	$V_{DD}-V_{SS}$	-0.3	-	7.0	V
Supply Voltage For LCD	$V_{DD}-V_5$	-0.3	-	7.0	V

## Electrical Characteristics

ITEM	Symbol	Condition	MIN.	TYP.	MAX.	Unit
Supply Voltage For Logic	$V_{DD}-V_{SS}$	$T_a=25\text{ }^\circ\text{C}$	-	5.0	5.5	V
Supply Voltage For LCD	$V_{DD}-V_{EE} (V_{OP})$		3.8	4.1	7.0	V
Input High Voltage			$0.8 V_{DD}$	-	$V_{DD}$	V
Input Low Voltage			0	-	$0.2 V_{DD}$	V
Output High Voltage		$I_{OH}=-0.5\text{mA}$	$0.8 V_{DD}$	-	$V_{DD}$	V
Output Low Voltage			0	-	$0.2 V_{DD}$	V

## Pin Assignment

Pin Assignment				Value			Unit
Pin	Symbol	Level	Function	MIN.	TYP.	MAX.	
1	DB7	H/L	Data Bus				
2	DB6	H/L					
3	DB5	H/L					
4	DB4	H/L					
5	DB3	H/L					
6	DB2	H/L					
7	DB1	H/L					
8	DB0	H/L					
9	E	H/L	Enable Signal				
10	R/W	H/L	Data Read/Write				
11	RS	H/L	Data Input or Instruction Input				
12	$V_{lcd}(V_5)$	-	Contrast Adjust Voltage	-	-	-	V
13	$V_{dd}$	+5V	Power Supply (+5V)	4.5	5.0	5.5	V
14	$V_{ss} (GND)$	0V	Power Supply (GND)	-	0	-	V
15	LED+	-	Power Supply For LED Backlight	-	4.2	-	V
16	LED-	-		-	0	-	V