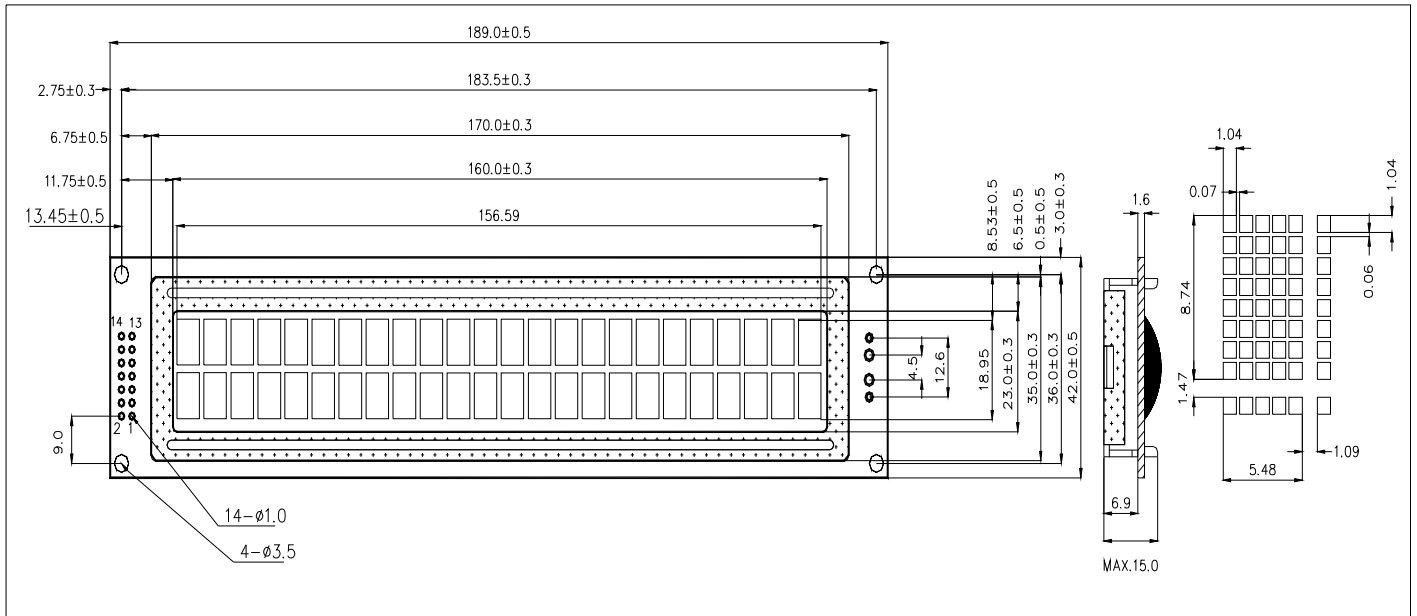
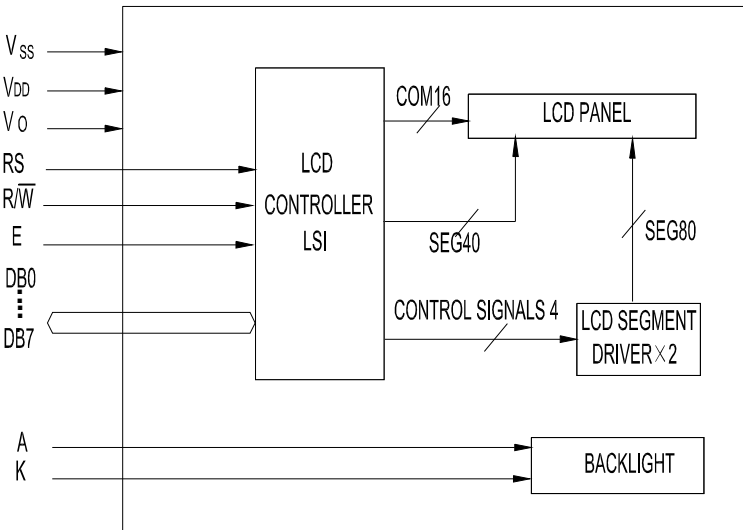


1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 PIN ASSIGNMENT

Pin no.	Symbol	Function
1	V_{SS}	Power supply (GND)
2	V_{DD}	Power supply(+)
3	V_O	Contrast adjust
4	R_S	Register select signal
5	R/W	Data read / write
6	E	Enable signal
7	DB0	Data bus line
8	DB1	
9	DB2	
10	DB3	
11	DB4	
12	DB5	
13	DB6	
14	DB7	
15	A	LED+
16	K	LED-

4.0 ELECTRICAL CHARACTERISTICS $T_a=25^\circ\text{C}$ $V_{DD}=5.0\text{V}\pm 0.25\text{V}$

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	$V_{DD}-V_{SS}$	25°C	4.75	5.0	5.25	V
LCD Operation Voltage	V_{OP}		-	4.8	-	V
LCM Current Consumption	I_{DD}		-	3.0	5.0	mA
Backlight Forward Voltage	V_F		-	4.2	-	V

5.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	$V_{DD}-V_{SS}$	25°C	-0.3	7	V
Supply Voltage (LCD)	$V_{DD}-V_O$		$V_{DD}-13.5$	$V_{DD}+0.3$	V
Input Voltage	V_{IN}		-0.3	$V_{DD}+0.3$	V
Operating Temp.	T_{OPR}	-	-20	65	°C
Storage Temp.	T_{STG}	-	-40	80	°C

Remark

1. LCD option: TN,STN,FSTN.
2. Standard module.
3. Backlight option: LED,EL backlight feature, other specs not available on catalog is under request.