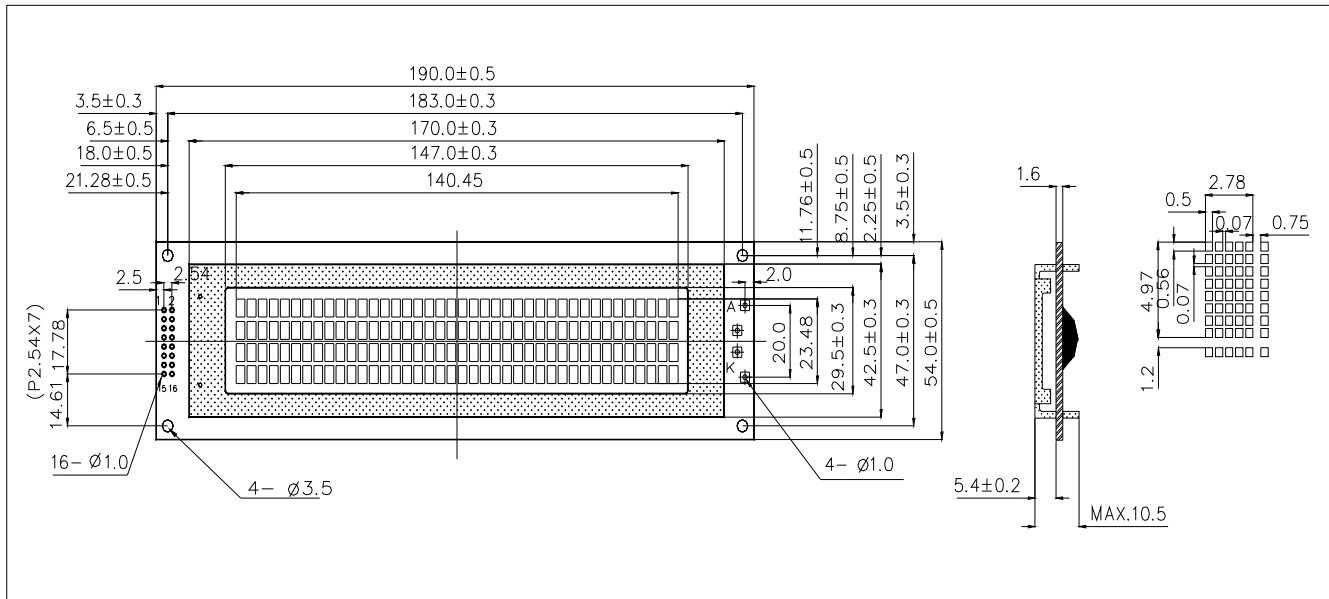
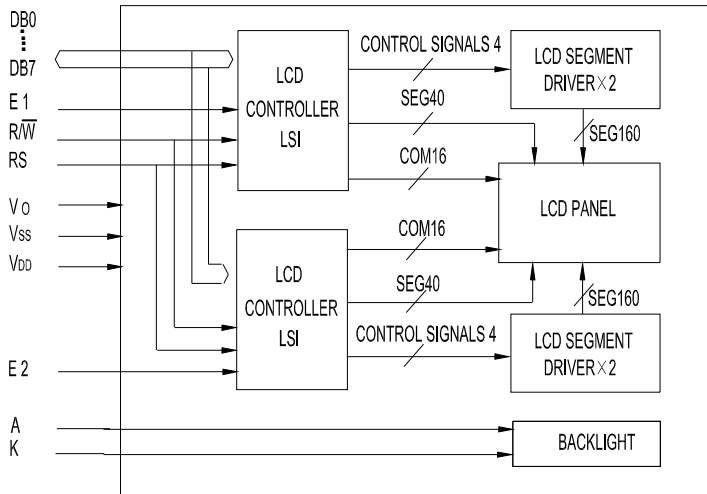


1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 PIN ASSIGNMENT

Pin no.	Symbol	Function
1	DB0	Data bus line
2	DB1	
3	DB2	
4	DB3	
5	DB4	
6	DB5	
7	DB6	
8	DB7	
9	E1	Enable signal 2
10	R / \bar{W}	Data read/write
11	RS	Register select signal
12	V _O	Contrast adjust
13	V _{SS}	Power supply (GND)
14	V _{DD}	Power supply(+)
15	E2	Enable signal 2
16	NC	No Connection

4.0 ELECTRICAL CHARACTERISTICS Ta=25 °C V_{DD}=5.0V±0.25V

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}	25°C	TN	-	-	-	V
			STN	-	5.0	-	V
LCM Current Consumption	I _{DD}	25°C	-	3.5	5.0	mA	
Backlight Forward Voltage	V _F		3.9	4.1	4.3	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}	-	0	50	°C
Storage Temp.	T _{STG}	-	-20	70	°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.