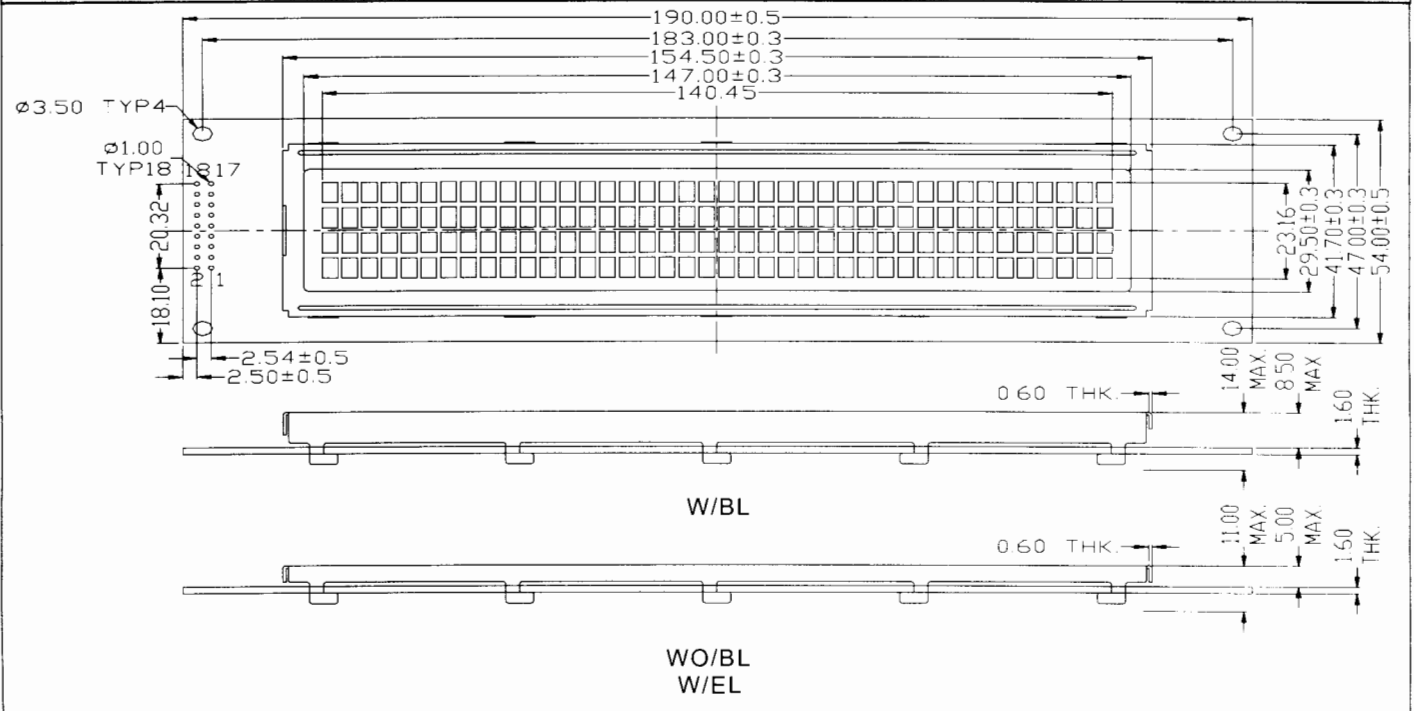
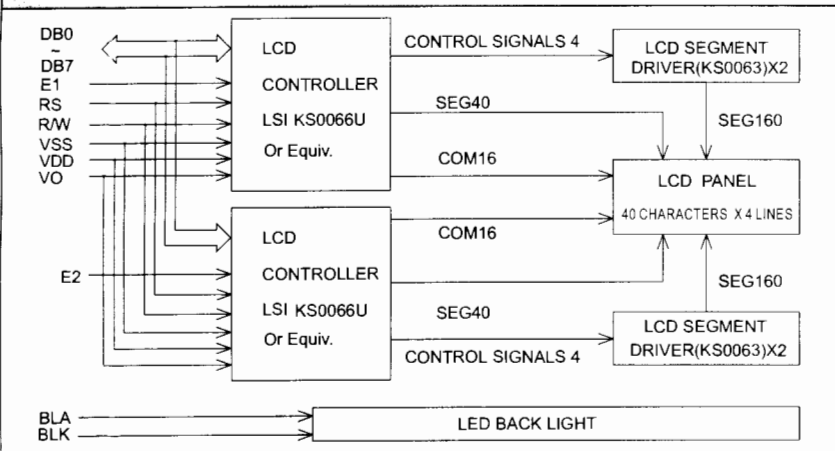


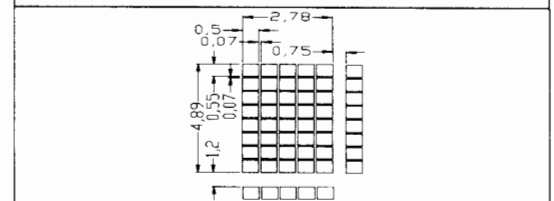
OUTLINE DIMENSION



BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

Item	Dimensions (w) X (H)	Unit
Overall Size	190 X 54	MM
View Area	147 X 29.5	MM
Character	2.78 X 4.89	MM
Dot Size	0.55 X 0.55	MM
Dot Pitch	0.57 X 0.62	MM

PIN ASSIGNMENT

Pin no.	Symbol	Function
1	Vss	Power Supply (GND)
2	VDD	Power supply (+)
3	VO	Contrast Adjust
4	RS	Command data input
5	R/W	Data read / write
6	E1	Enable driver 1
7	E2	Enable driver 2
8 ~ 15	DB0 ~ DB7	Data bus line
16	NC	No Connection
17	BLA	Back light anode
18	BLK	Back light cathode

ABSOLUTE MAXIMUM RATING

Item	Symbol	Condition	Min.	Max.	Unit
Supply for logic voltage	V _{DD}	25°C	-0.3	7.0	V
LCD driving supply voltage	V _{DD} - V _O	25°C	-0.3	V _{DD} +0.3	V
Input voltage	V _I	25°C	-0.3	V _{DD} +0.3	V

Item	Symbol	Condition	Min.	Typical	Max.	Unit
Supply voltage for logic	V _{DD}	---	4.5	5.0	5.5	V
Supply current for logic	I _{DD}	---	---	2.51	5	mA
Operation voltage for LCD	V _{DD} - V _O	0°C	4.7	5.0	5.3	V
		25°C	4.5	4.8	5.1	V
		50°C	4.3	4.6	4.9	V
Input voltage "H" level	V _{IH}	---	V _{DD} -2.2	---	V _{DD}	V
Input voltage "L" level	V _{IL}	---	0	---	0.8	V
Supply voltage for back light	V _F	---	---	4.2	4.6	V
Supply current for back light	I _F	V _F =4.2V	---	500	840	mA

REMARKS:

- LCD options: STN, FSTN.
- Back light Options: EL Back light feature, other Specs not available on catalog is under request.