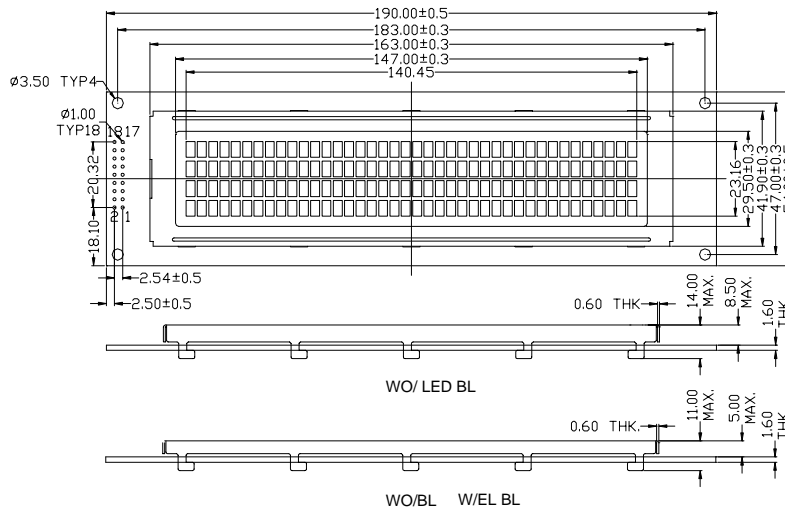
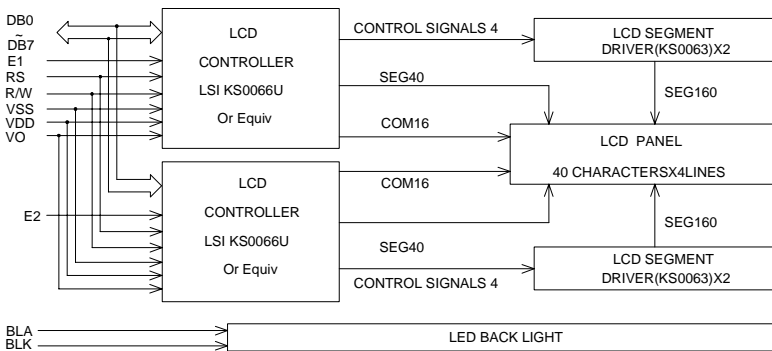


OUTLINE DIMENSION

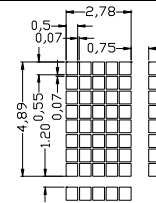


Tolerance: ±0.20mm, unless otherwise specified.

BLOCK DIAGRAM



DISPLAY PATTERN



MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	190x54.0	MM
View Area	147x29.5	MM
Character	2.78x4.89	MM
Dot Size	0.50x0.55	MM
Dot Pitch	0.57x0.62	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	VDD	25°C	-0.3	7.0	V
LCD driving supply voltage	VDD-Vo	25°C	-0.3	VDD+0.3	V
Input voltage	VI	25°C	-0.3	VDD+0.3	V

ELECTRICAL CHARACTERISTICS

Item	Symbol	Condition	Min	Typical	Max	Unit
Supply voltage for logic	VDD	---	4.5	5.0	5.5	V
Supply current for logic	IDD	---	---	2.51	5	mA
Operation voltage for LCD	VDD-Vo	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	VIH	---	VDD-2.2	---	VDD	V
Input voltage " L " level	VIL	---	0	---	0.8	V
Supply voltage for back light	VF	---	---	4.2	4.6	V
Supply current for back light	IF	VF=4.2V	---	600	1200	mA

REMARKS:

- LCD options: STN, FSTN.
- Back light Options: LED\EL Back light feature.