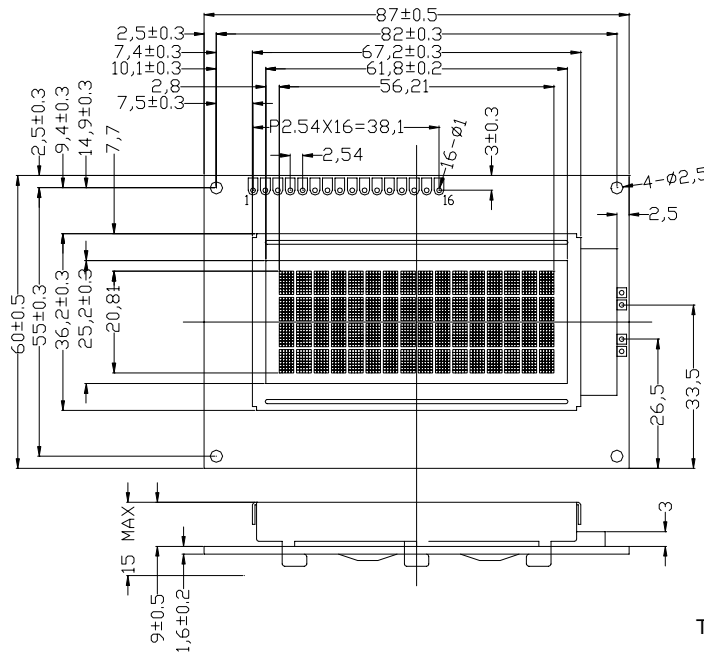


# Standard LCD module

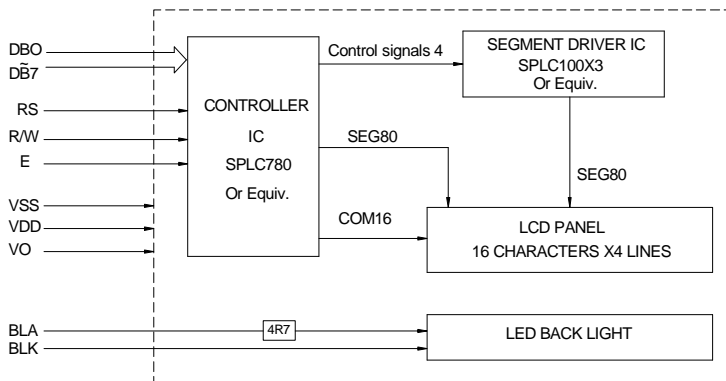
# MC1604-02

## OUTLINE DIMENSION

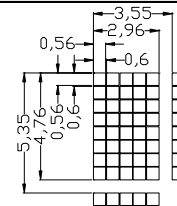


Tolerance: ± 0.20mm, unless otherwise specified.

## BLOCK DIAGRAM



## DISPLAY PATTERN



## MECHANICAL SPECIFICATION

Item	Dimensions(W)X(H)	Unit
Overall Size	87.0x60.0	MM
View Area	61.6x25.2	MM
Character	2.95x4.76	MM
Dot Size	0.56x0.56	MM
Dot Pitch	0.60x0.60	MM

Character Type

## 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
36	E	Enable signal
7-14	DB0~DB7	Data bus line
15	BLA	Back light anode
16	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	---	---	1.4	4	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	4.4	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	---	---	5.0	5.2	V
Supply current for back light	IF	VF=5.0V	---	30	90	mA

### REMARKS:

- LCD options: STN, TN, FSTN.
- Back light type: LED Back light feature.