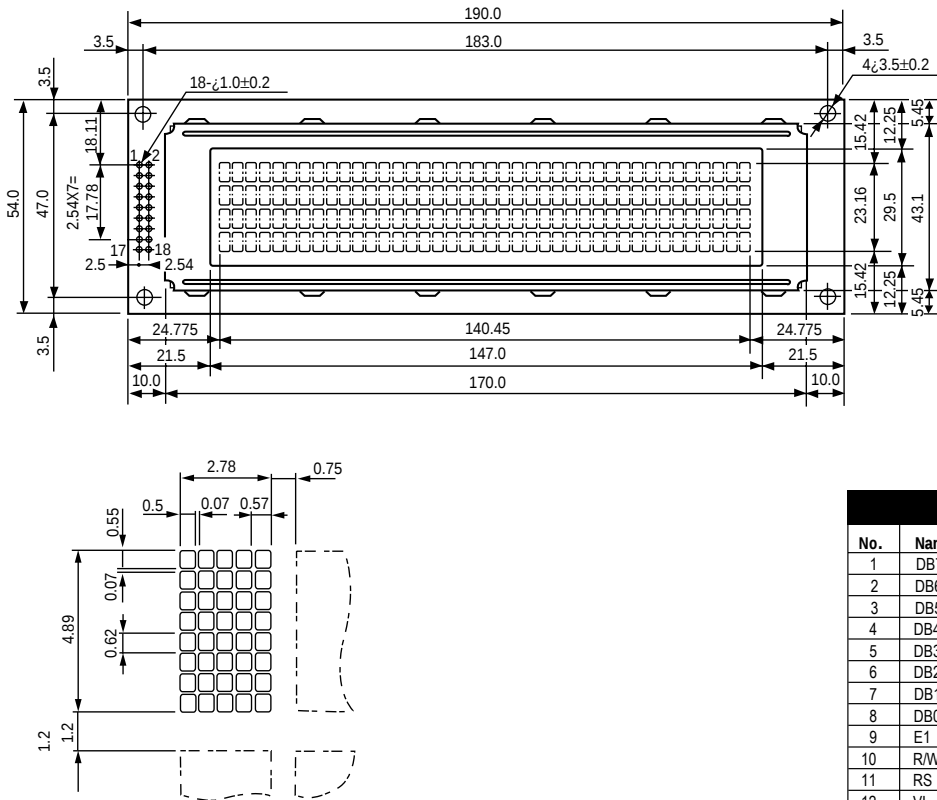
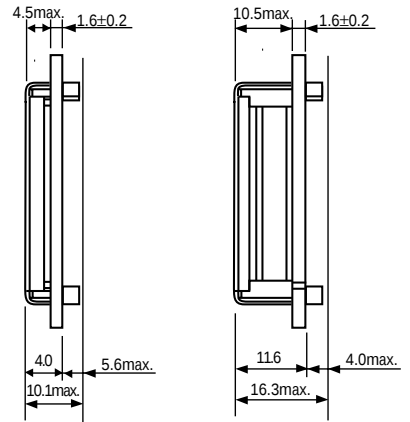


LCD L4044

4 lines x 40 character (4x40) Unit: mm General Tolerance w0.5 mm



Reflective/EL Backlight LED Backlight



PIN FUNCTIONS		
No.	Name	Function
1	DB7	Data bus line
2	DB6	Data bus line
3	DB5	Data bus line
4	DB4	Data bus line
5	DB3	Data bus line
6	DB2	Data bus line
7	DB1	Data bus line
8	DB0	Data bus line
9	E1	Enable
10	R/W	L: Data write from MPU to LCM. H: Data read from LCM to MPU
11	RS	L: Instruction code input. H: Data input
12	VL	Liquid crystal driving voltage 0 to -5V
13	VSS	GND
14	VDD	Power supply voltage + 5 V
15	E2	Enable (for lower 2 lines)
16	NC	
17	VA*	Anode
18	VC*	Cathode

*LED Powered through pins 17 & 18 (only LED Version of LCD)

General Characteristics:

No. of Characters	4 lines X 40 char.
Fluid	STN
Module Size	190.0 (H) X 54.0 (V) X 10.1 (T) mm
Weight	90 g
Viewing Area:	147.0 (H) X 29.5 (V) mm
Character Size:	2.78 (H) X 4.27 (V) mm
Dot Size:	0.55 (H) X 0.55 (V) mm
Dot Spacing:	0.07 mm
Power Consumption	40 mW

Electrical Characteristics:

Conditions: $T_A = 25^\circ\text{C}$

I_{DD} (typical)	8 mA
I_{LC} (typical)	3.8 mA
Clock oscillation freq.	270 kHz

UL Ratings:

UL Rating	TW-2294V-0
Rating	94V-0
ANSI	FR-4
Substrate Material	Glass - Epoxy
Manufacturer	Towa Industries

Optical Characteristics:

Contrast (typical)	4
Viewing angle (min)	70°
Response time (rise)	270 ms
Response time (fall)	60 ms

