

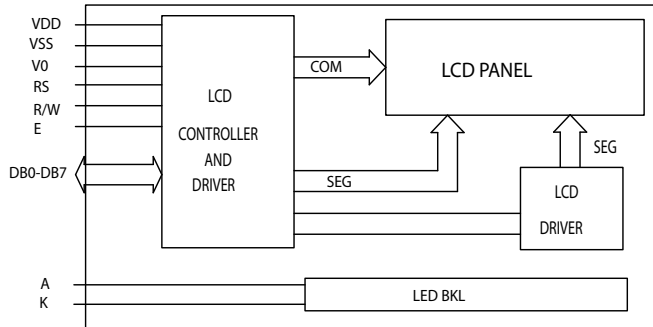
Pin connections

PIN NO	Symbol
1	VSS
2	VDD
3	V0
4	RS
5	R/W
6	E
7	DB0
8	DB1
9	DB2
10	DB3
11	DB4
12	DB5
13	DB6
14	DB7
15	A
16	K

Feature

1. 4-line x16 characters display; 5x8 dots with cursor
2. Built-in controller (KS0066U or Equivalent)
3. +5V power supply(Also available for +3.3V)
4. 1/16 duty cycle;1/5bias;
5. TN, HTN, STN or FSTN mode
6. BKL to be driven by pin1, pin2, or pin15, pin16, or A, K

Block diagram:



Display character address code

Display position

DDRAM address	00	01	02	---	---	---	---	14	15	16
DDRAM address	40	41	42	---	---	---	---	4D	4E	4FH
	10	11	12	---	---	---	---	1D	1E	1FH
	50	51	52	---	---	---	---	5D	5E	5FH

Absolute Maximum Rating

Item	Symbol	Standard			Unit
		Min	Typ	Max	
Input voltage	VI	-0.3	-----	5.5	V
Power supply	VDD-VSS	-0.3	-----	VDD	

Electronical characteristics

Item	Symbol	Condition	Standard			Unit		
			Min	Typ	Max			
Input voltage	VDD	+5V	4.7	5.0	5.5	V		
		+3.3V	2.7	3.3	5.3	V		
		Supply current	IDD	VDD=5V	-----	2.0	4	mA
		Recommended LCD driving voltage for normal temp version module	VDD-V0	-20°C	4.8	5.0	5.3	V
				0 °C	4.6	4.8	5.0	
25°C	4.3			4.5	4.7			
50°C	4.2			4.3	4.5			
LED forward voltage	VF	25°C	-----	4.2	5.0	V		
LED forward current	IF	25°C	-----	200	-----	mA		
EL power supply current	IEL	VEL=110V AC 400Hz	-----	-----	-----	mA		

Mechanical thickness

LCD module thickness	T1	T2	UNIT
Without or EL backlight	4.6	9.5	mm
With edge LED backlight	---	---	mm
With LED bottom backlight	9.3	14.0	mm

Mechanical data

Item	Standard	Unit
Module dimension	87.0x60.0	mm
Viewing area	61.8x25.2	mm
Dot size	0.55x0.55	mm
Character size	2.95x4.75	mm