

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	Vdd - Vss	-0.3	7.0	V
Supply Voltage(LCD)	Vdd - V0	-0.3	13.0	V
Input Voltage	Vi	-0.3	Vdd + 0.3	V
Operating Temp.	Topr	-20	70	°C
Storage Temp.	Tstg	-30	80	°C

MECHANICAL DATA

Item	Max.	Unit
Module Size (W X H X T)	190.0 X 54.0 X 14.0	mm
Viewing Area(W X H)	147.0 X 29.5	mm
Character Size(W X H)	2.78 X 4.89	mm
Dot Size(W X H)	0.50 X 0.55	mm
View Angle	6 or 12 O'Clock	

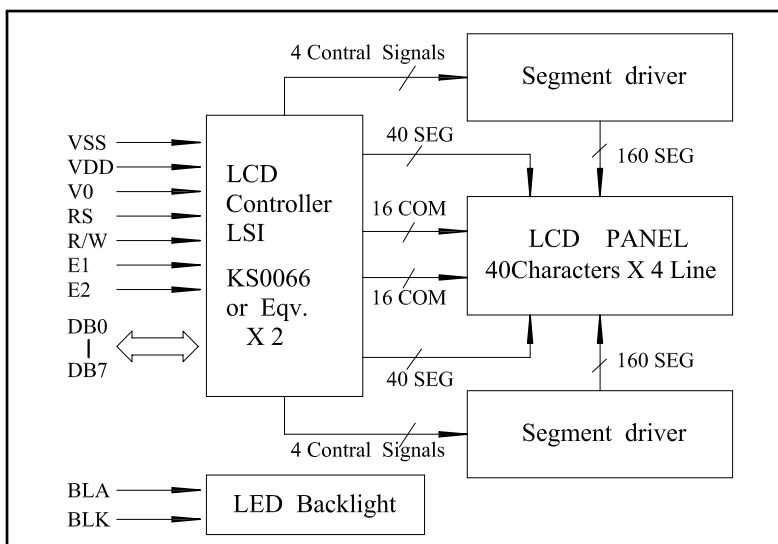
ELECTRICAL CHARACTERISTICS (Vdd=5V±0.25V)

Item	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Input High Voltage	Vih	--	2.0	--	Vdd	V
Input Low Voltage	Vil	--	-0.3	--	0.8	V
Output High Voltage	Voh	Ioh=-0.2mA	2.4	--	Vdd	V
Output Low Voltage	Vol	Iol=-1.6mA	0	--	0.4	V
Supply Current	Idd	Vdd=5.0V	--	3.0	5.0	mA
LCD Driving Voltage	Vdd - V0	Ta=25 °C	--	4.7	--	V

PIN CONNECTIONS

Pin	Symbol	Level	Function
1	DB7	H/L	Data bus line
2	DB6	H/L	
3	DB5	H/L	
4	DB4	H/L	
5	DB3	H/L	
6	DB2	H/L	
7	DB1	H/L	
8	DB0	H/L	
9	E1	H/L	Enable signal for chip 1
10	R/W	H/L	H:Read L:Write
11	RS	H/L	H:Data L:Instruction code
12	V0	--	Operation voltage for LCD
13	VSS	0V	Power GND
14	VDD	+5V	Power supply for logic
15	E2	H/L	Enable signal for chip 2
16	NC		no connection
17	BLA	+5V	Power supply for LED backlight
18	BLK	0V	

BLOCK DIAGRAM



LCD Type

LCD Color	Backlight