



- ◆ 5 x 7 DOTS WITH CURSOR
- ◆ BUILT-IN CONTROLLER (KS0066 OR EQUIVALENT)
- ◆ 5 V POWER SUPPLY
- ◆ 1/16 DUTY CYCLE
- ◆ 4.2 V LED FORWARD VOLTAGE

ITEM	DIMENSIONS	UNIT
Module Size (W x H x T)	98.0 x 60.0 x 8.8 (12.7 LED)	mm
Viewing Area (W x H)	77.0 x 26.3	mm
Character Size (W x H)	2.95 x 4.75	mm
Character Pitch (W x H)	3.55 x 5.35	mm
Dot Size (W x H)	0.55 x 0.55	mm
Dot Pitch (W x H)	0.60 x 0.60	mm

NO.	SYMBOL	FUNCTION	NO.	SYMBOL	FUNCTION
1	V _{SS}	Supply Ground	9	DB2	Data Bit 2
2	V _{DD}	Supply Voltage	10	DB3	Data Bit 3
3	V _O	Contrast Adj.	11	DB4	Data Bit 4
4	RS	Register Select	12	DB5	Data Bit 5
5	R/W	Read/Write	13	DB6	Data Bit 6
6	E	Enable Signal	14	DB7	Data Bit 7
7	DB0	Data Bit 0	15	A	LED Power
8	DB1	Data Bit 1	16	K	LED Power

ITEM		SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
LCD Operating Voltage		V _{DD-Vo}	T=0℃	-	4.8	-	V
			T=25℃	-	4.5	-	V
			T=50℃	-	4.2	-	V
Supply Voltage		V _{DD-VSS}	-	4.7	5	5.3	V
Supply Current		I _{DD}	-	-	3.2	6	mA
Input	"HIGH" Level	V _{IH}	-	2.2	-	V _{DD}	V
Voltage	"LOW" Level	V _{IL}	-	0	-	0.6	V
Output	"HIGH" Level	V _{OH}	-	2.4	-	-	V
Voltage	"LOW" Level	V _{OL}	-	-	-	0.4	V

The block diagram illustrates the internal components and connections of the LCD module. The main components are the LCD CONTROLLER, LCD PANEL, LCD SEGMENT DRIVER, and LED BACKLIGHT. The LCD CONTROLLER is connected to the LCD PANEL via a COM16 signal. The LCD CONTROLLER is also connected to the LCD SEGMENT DRIVER via a SEG40 signal. The LCD SEGMENT DRIVER is connected to the LCD PANEL via a SEG160 signal. The LCD CONTROLLER is connected to the LED BACKLIGHT via a 4-bit signal. The LCD CONTROLLER is also connected to the LED BACKLIGHT via a 4-bit signal. The LCD CONTROLLER is connected to the LED BACKLIGHT via a 4-bit signal.

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graph LR
    DB7[DB7] --> LCD_CONTROLLER[LCD CONTROLLER]
    DB0[DB0] --> LCD_CONTROLLER
    E[E] --> LCD_CONTROLLER
    RW[R/W] --> LCD_CONTROLLER
    RS[RS] --> LCD_CONTROLLER
    Vo[Vo] --> LCD_CONTROLLER
    VDD[VDD] --> LCD_CONTROLLER
    Vss[Vss] --> LCD_CONTROLLER
    LCD_CONTROLLER -- COM16 --> LCD_PANEL[LCD PANEL]
    LCD_CONTROLLER -- SEG40 --> LCD_SEGMENT_DRIVER[LCD SEGMENT DRIVER]
    LCD_SEGMENT_DRIVER -- SEG160 --> LCD_PANEL
    LCD_CONTROLLER -- 4 --> LED_BACKLIGHT[LED BACKLIGHT]
    A[A] --> LED_BACKLIGHT
    K[K] --> LED_BACKLIGHT
  
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Technical drawing of a 16-channel multi-pin connector. The drawing includes a top view, two side views, and a detail view of the pin grid.

Top View Dimensions:

- Total width: 98.0 ± 0.5 mm
- Total height: 60.0 ± 0.5 mm
- Pin pitch: $PITCH 2.54 * 15 = 38.1$ mm
- Pin diameter: $16 - \phi 1.0$ mm
- Pin spacing: $4 - \phi 2.8$ mm
- Pin grid dimensions: 70.4 mm, 77.0 mm, 96.2 mm
- Pin grid height: 20.8 mm, 26.3 mm, 36.2 mm, 55.0 mm

Side View Dimensions:

- Top side view: 8.8 mm, 4.8 mm
- Bottom side view: 1.6 mm

Detail View Dimensions:

- Pin pitch: 3.55 mm, 2.95 mm
- Pin spacing: 0.55 mm, 0.05 mm
- Pin grid dimensions: 5.35 mm, 4.75 mm, 0.55 mm, 0.05 mm

SCALE 4/1