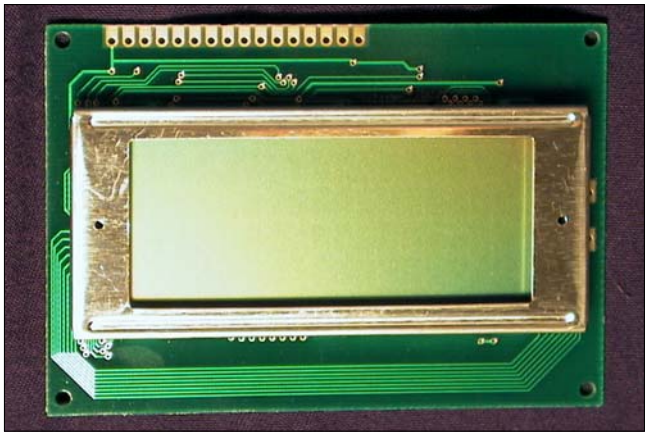


AND731GST/GST-LED

4 Lines x 16 Characters Intelligent Character Display

The AND731GST/GST-LED devices are compact, LCD modules that have an on-board LCD controller and driver circuit. These devices can display 160 characters (numerals, letters, symbols and Kana letters, as well as eight custom characters.

Features

• RoHS Compliant

- AND731GST: Super Twist Technology
- AND731GST-LED: STN with LED backlight
- Low voltage, +5V single power supply
- Built-inController
- 5 x 7 Dots with cursor
- 1/16 Duty cycle
- 4.2V LED forward voltage

Mechanical Characteristics

Item	Specification	Unit
Outline Dimensions	87 (W) x 60 (H) x 8.8 (D) (12.7 LED)	mm
Character Size	2.95 (W) x 4.75 (H)	mm
Viewing Area	62 (W) x 25.6 (H)	mm
Character Pitch	3.55 (W) x 5.35 (H)	mm
Dot Size	0.55 (W) x 0.55 (H)	mm
Dot Pitch	0.60 (W) x 0.60 (H)	mm

Absolute Maximum Ratings

Item	Symbol	Rating	Unit
LED Forward Current	I_F	400	mA
LED Reverse Voltage	V_R	4	V
Supply Voltage	V_{DD}	7.0	V
Input Voltage	V_{IN}	$0 \le V_{IN} \le V_{DD}$	V
Operating Temperature	T_{op}	0 to +50	°C
Storage Temperature	T_{stg}	–20 to +60	°C

Electrical Characteristics (TA = 25°C)

Item		Symbol	Min.	Typ.	Max.	Unit
LCD Operating Voltage	T = 0°C	V_{DD}-V_O	–	4.8	–	V
	T = 25°C		–	4.5	–	
	T = 50°C		–	4.2	–	
Supply Voltage		V_{DD}-V_{SS}	4.7	5	5.3	V
Supply Current		I_{DD}	–	3.2	6	mA
Input Voltage	Hi Level	V_{IH}	2.2	–	–	V
	Low Level	V_{IL}	0	–	V_{DD}	V
Outpit Voltage	Hi Level	V_{OH}	2.4	–	0.6	V
	Low Level	V_{OL}	–	–	0.4	V

Optical Characteristics (TA = 25°C, ϕ = 0°, θ = 0°)

Item	Symbol	Min.	Typ.	Max.	Unit
Viewing Angle	ϕ	–	50	–	degree
Contrast	K	–	6.0	–	–
Turn On	T_{on}	–	200	400	ms
Turn Off	T_{off}	–	250	400	ms

Product specifications contained herein may be changed without prior notice.
It is therefore advisable to contact Purdy Electronics before proceeding with the design of equipment incorporating this product.

Connector Pin Assignment

Pin No.	Signal	Function
1	V_{SS}	Ground
2	V_{DD}	+5 Power Supply
3	V_O	LCD Drive Voltage
4	RS	"H" Data Input "L" Command Input
5	R/W	Read/Write
6	E	Enable
7	DBO	Data Bit 0
8	DB1	Data Bit 1
9	DB2	Data Bit 2
10	DB3	Data Bit 3
11	DB4	Data Bit 4
12	DB5	Data Bit 5

Connector Pin Assignment (Continued)

Pin No.	Signal	Function
13	DB6	Data Bit 6
14	DB7	Data Bit 7
15	A	LED Power
16	K	LED Power

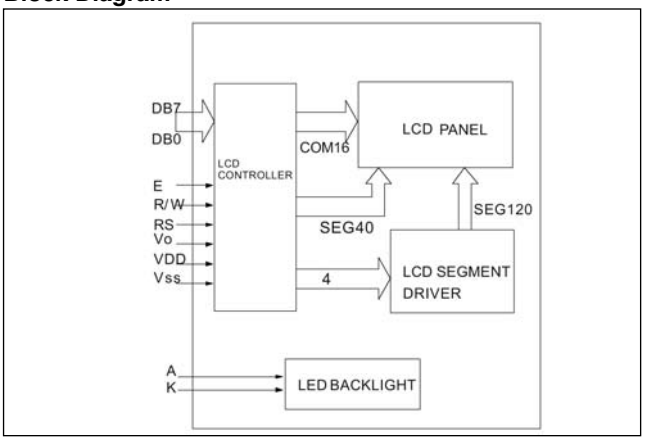
Power Supply

The LCD panel is driven by the voltage V_{DD}–V_O, so you need an adjustable V_O for contrast and temperature control.

Temperature Variations

Temperature	V_{DD}–V_O
0°C	5.00
+25°C	4.75
+50°C	4.50

Block Diagram



Dimensional Outline