

AND1261GST/GST-LED

128 x 64 Dots

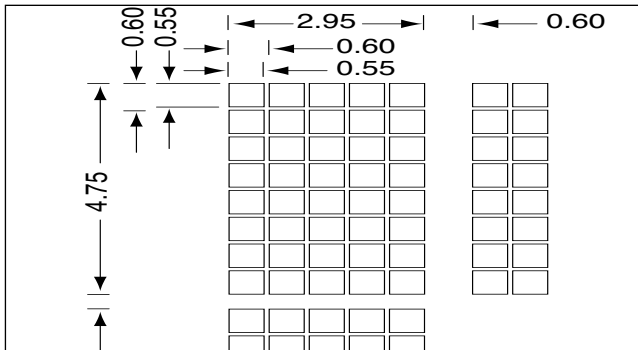
Smart Graphic Display

The AND1261GST/GST-LED devices are compact, full dot matrix, LCD modules that have a built-in control functions, Data RAM and display memory (RAM). The AND1261 can display TEXT information, numerals, letters and symbols, as well as GRAPHIC patterns. These devices are suitable for medical and measurement equipment, point-of-sale terminals, portable equipment, and marine instrumentation.

Features

- λ 128 x 64 dot graphic display
- λ 16 characters x 8 line capability
- λ Excellent readability and high-contrast ratio
- λ Compact with low power consumption
- λ Built-in Data RAM
- λ Wide operating temperature range (-20° to 70°C)
- λ Available with LED backlighting (-LED option)

Dot Matrix Dimensions



Mechanical Characteristics

Item	Specification	Unit
Outline Dimensions	93.0 (H) x 70.0 (V) x 8.8 (D)	mm
# of Dots	128 x 64	
# of Characters	21 x 8 (128), 6 x 8 Font	
Viewing Area	60.0 (H) x 33.0 (V)	mm
Dot Size	0.48 (H) x 0.48 (V)	mm
Dot Pitch	0.43 (H) x 0.43 (V)	mm
Weight	45 (approx.)	gram
DC/DC Converter	With (Optional)	

Absolute Maximum Ratings

Item	Symbol	Rating	Unit
Supply Voltage	V_{DD}	7.0	V
	V_{EE}	$V_{DD} + 0.3$	
	V_{LED}	4.6	
Input Voltage	V_{IN}	$GND \leq V_{IN} \leq V_{DD}$	mA
Operating Temperature	T_{op}	-20 to +70	°C
Storage Temperature	T_{stg}	-30 to +80	°C

Electrical Characteristics (TA = 25°C)

Item	Symbol	Min.	Typ.	Max.	Unit
Power Supply for Logic	$V_{DD}-V_{SS}$	4.5	5.0	5.5	V
Input Voltage	V_{IL} (L level)	V_{SS}	$0.2V_{DD}$	-	V
	V_{IH} (H level)	$0.8V_{DD}$	V_{DD}	-	
	$V_{DD} - V_O$ (Ta_0_)	-	-	-	
	$V_{DD} - V_O$ (Ta_25_)	7.6	8.3	9.2	
Power Supply Current for LCM ($V_{DD} - 5.0V$) ($V_{DD} - V_O - 5.0V$)	V_{OL}	-	2.0	3.5	mA
	I_{DD}	-	2.4	-	
LED Forward Voltage (If_390mA)	I_{DD}	-	4.2	4.6	V
LED Forward Current	I_{LED}	-	390	-	mA
LED Reverse Current (VR-8V)		-		0.2	mA

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.



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Optical Characteristics (TA 5 = 25°C, φ = 0°, θ = 0°)

Item	Symbol	Min.	Typ.	Max.	Unit
Viewing Angle Range	_f(12 o'clock)	-	10	-	deg.
	_b(6 o'clock)	-	30	-	
	_l(9 o'clock)	-	30	-	
	_r(3 o'clock)	-	30	-	
Rise Time	Tr	-	200	-	ms
Fall Time	Tf	-	250	-	
Frame Frequency	Frm	-	64	-	Hz
Contrast	Cr	-	4.5	-	
The Brightness of Backlight	L	140	180	-	cd/_
Peak Emission Wavelength	_P	-	570	576	nm

Connector Pin Assignment

Pin #	Signal	Level	Function
1	V _{SS}	0V	Ground
2	V _{DD}	5V	Logic supply voltage
3	V _O	-	Contrast adj. voltage
4	D/I	H/L	H: Data, L: Instruction Code
5	R/W	H/L	H: Read/ L: Write
6	E	H_L	Enable Signal
7	DB0	H/L	Data Bus Line
8	DB1		
9	DB2		
10	DB3		
11	DB4		
12	DB5		
13	DB6		
14	DB7		
15	CS1	H	Chip Select Signal for IC1
16	CS2	H	Chip Select Signal for IC2
17	/RES	L	Reset signal
18	Vout	-	Power Supply Voltage for LCD
19	A	4.2V	LED Power (+)
20	K	0V	LED Power (-)



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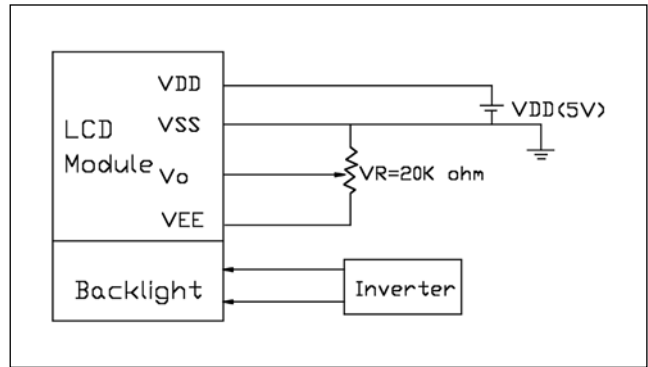
Power Supply

The LCD panel is driven by the voltage $V_{DD}-V_O$, so an adjustable V_O is required for contrast control and temperature compensation.

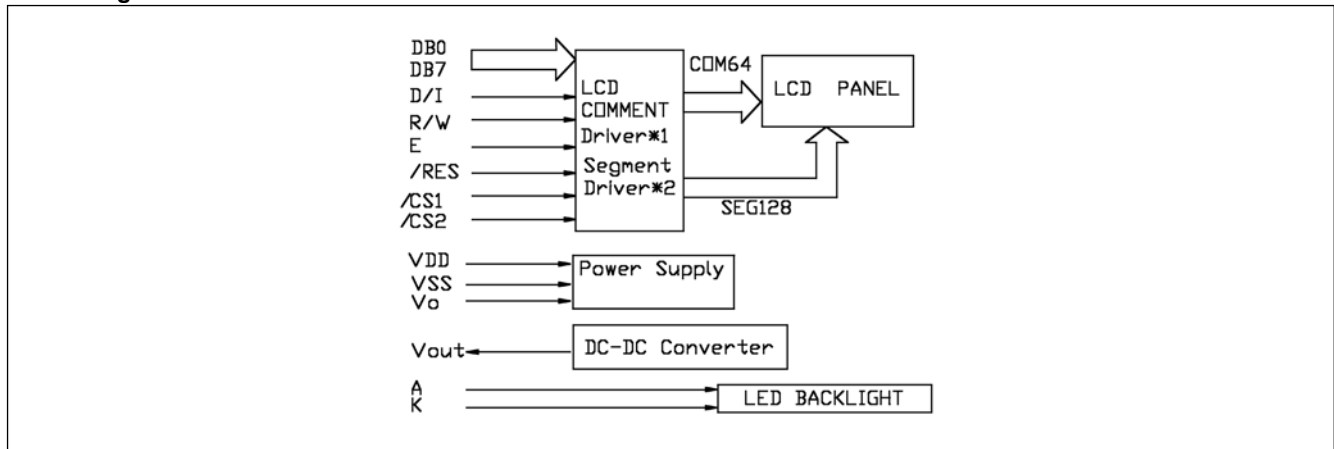
Temperature Variations

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

Power Supply Block Diagram



Block Diagram



Dimensional Outline

