

***Phoenix Display International, Inc.***

# PRODUCT PREVIEW

## 122 x 32 Monochrome

**TN/STN**

Graphics

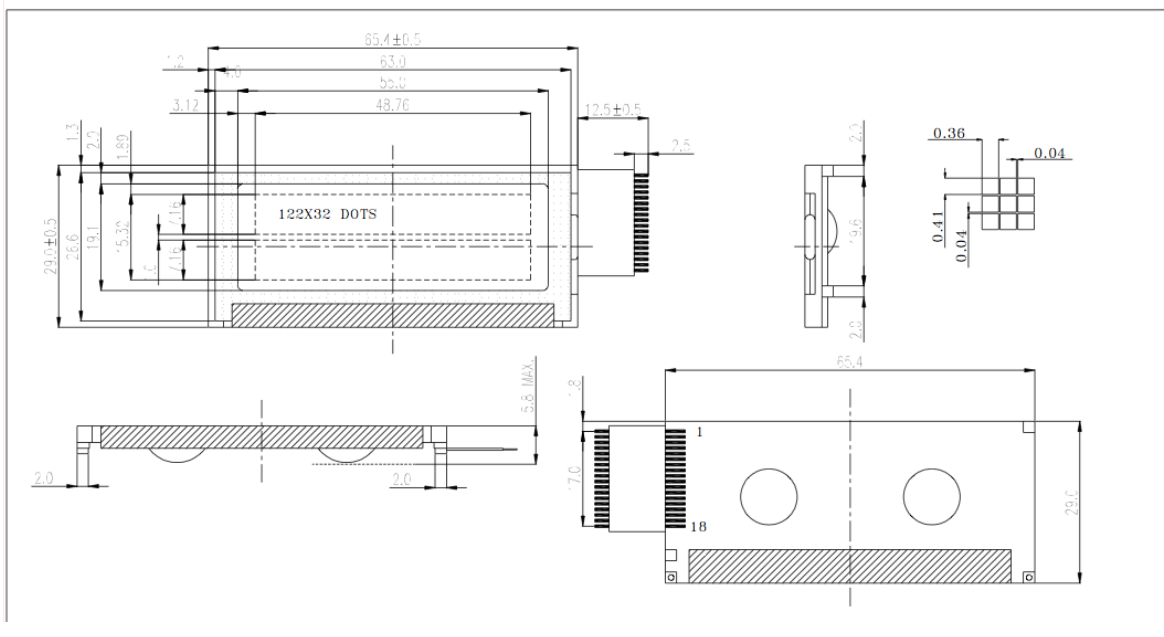
Liquid Crystal Display

### SPECIFICATIONS

#### MODULE

Part Number	G-1223221C-VA
Format	122 Columns by 32 Rows
Controller	SED1520
Overall Dimensions	64.0mm x 29.0mm x 5.8mm
Active Area	48.8mm x 15.3mm
Pixel Pitch	400um x 450um
Pixel Size	360um x 410um
Backlight System	LED
Driver Attach	Chip on Board (COB)
Glass Type	STN, FSTN
Display Type	R,TF,TM
Duty	1/32

#### 1.0 DIMENSIONAL DRAWING



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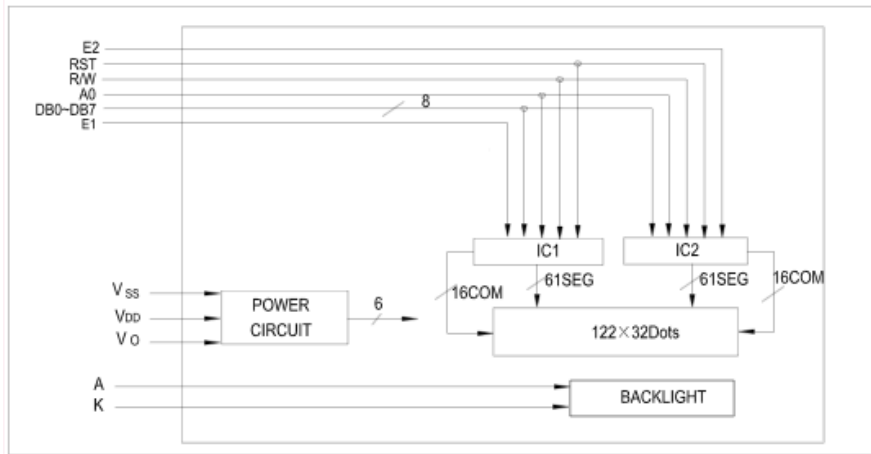


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### 2.0 BLOCK DIAGRAM



### 3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C VDD=5.0V±0.25V

Item	Symbol	Test Condition	Standard Value			
			Min.	Typ.	Max.	Unit
Power Supply Voltage	V <sub>DD-VSS</sub>	25°C	4.5	5.0	5.5	V
LCD Operation Voltage	V <sub>OP</sub>		-	5.2	-	V
LCM Current Consumption	I <sub>DD</sub>		-	2.0	3.0	mA
Backlight Forward Voltage	V <sub>F</sub>		-	2.1	-	V

### 4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	V <sub>DD-VSS</sub>	25°C	-0.3	7	V
Supply Voltage (LCD)	V <sub>DD-Vo</sub>		-0.3	13.5	V
Input Voltage	V <sub>IN</sub>		-0.3	V <sub>DD</sub> +0.3	V
Operating Temp.	T <sub>OPR</sub>	-	0	50	°C
Storage Temp.	T <sub>STG</sub>	-	-20	70	°C

### 5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	V <sub>DD</sub>	Power supply
2	GND	Power supply(GND)
3	V <sub>O</sub>	Operating voltage for LCD
4	RST	Reset at rising edge
5	E1	Enable signal for IC1
6	E2	Enable signal for IC2
7	R/W	Read/Write selection H:Read; L:Write
8	A0	Register selection H:Display data; L:Instruction
9-16	DB0-DB7	Data bus
17	LEDK	LED Back-light
18	LEDA	LED Back-light

**Remark**

1. LCD option: STN, FSTN .
2. Standard module.
3. Backlight option: LED backlight feature, other specs not available on catalog is under request.

