

*Phoenix Display International, Inc.*

# PRODUCT PREVIEW

## 122 x 32 Monochrome

# TN/STN

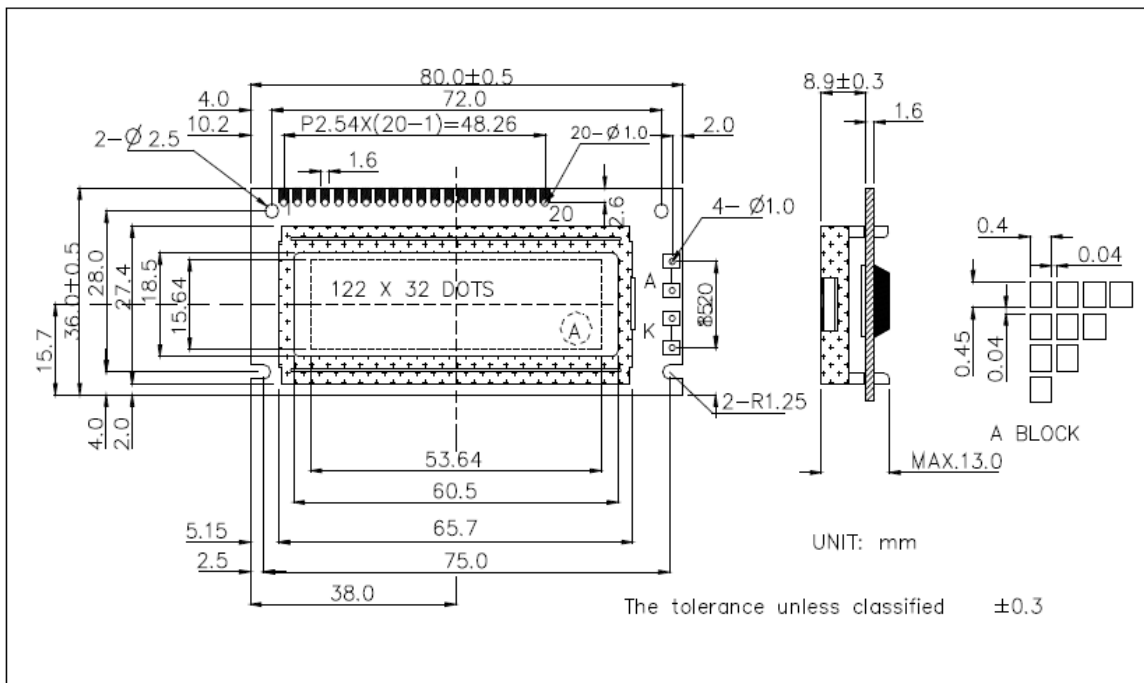
Graphics  
Liquid Crystal Display

### SPECIFICATIONS

#### MODULE

Part Number	PDI-MG1223218C-VA
Format	122 Columns by 32 Rows
Controller	SED1520
Overall Dimensions	80.0mm x 36.0mm x 13mm
Active Area	53.64mm x 15.64mm
Pixel Pitch	440um x 490um
Pixel Size	400um x 450um
Backlight System	LED
Driver Attach	Chip on Board (COB)
Display Type	STN, FSTN
Duty	1/32
Bias	1/5

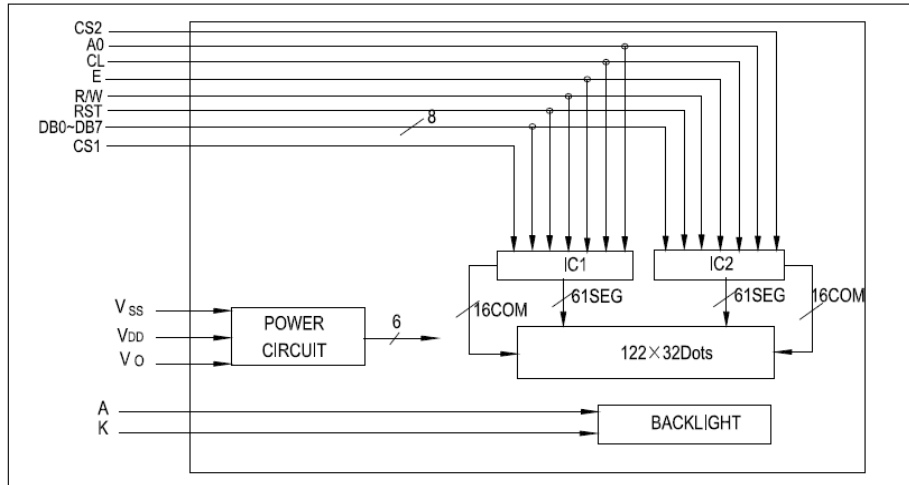
#### 1.0 DIMENSIONAL DRAWING



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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			Unit
			Min.	Typ.	Max.	
Power Supply Voltage	V <sub>DD</sub> -V <sub>SS</sub>	25°C	4.5	5.0	5.5	V
LCD Operation Voltage	V <sub>OP</sub>		-	6.5	-	V
LCM Current Consumption	I <sub>DD</sub>		-	2.0	3.0	mA
Backlight Forward Voltage	V <sub>F</sub>		-	4.2	-	V

### 4.0 ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Test Condition	Standard Value		
			Min.	Max.	Unit
Supply Voltage (Logic)	V <sub>DD</sub> -V <sub>SS</sub>	25°C	-0.3	7	V
Supply Voltage (LCD)	V <sub>DD</sub> -V <sub>O</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	GND	Power supply(GND)
2	V <sub>DD</sub>	Power supply
3	V <sub>O</sub>	Operating voltage for LCD
4	A0	Register selection H: Display data; L: Instruction
5	/CS1	Chip select for IC1
6	/CS2	Chip select for IC2
7	CL	External clock
8	E	Enable signal
9	R/W	Read/Write selection H: Read; L: Write
10-17	DB0~DB7	Data bus
18	RST	Reset at rising edge
19	LEDA	LED Back-light
20	LEDK	

