

Phoenix Display International, Inc.

PRODUCT PREVIEW

84 x 48 Monochrome

TN/STN

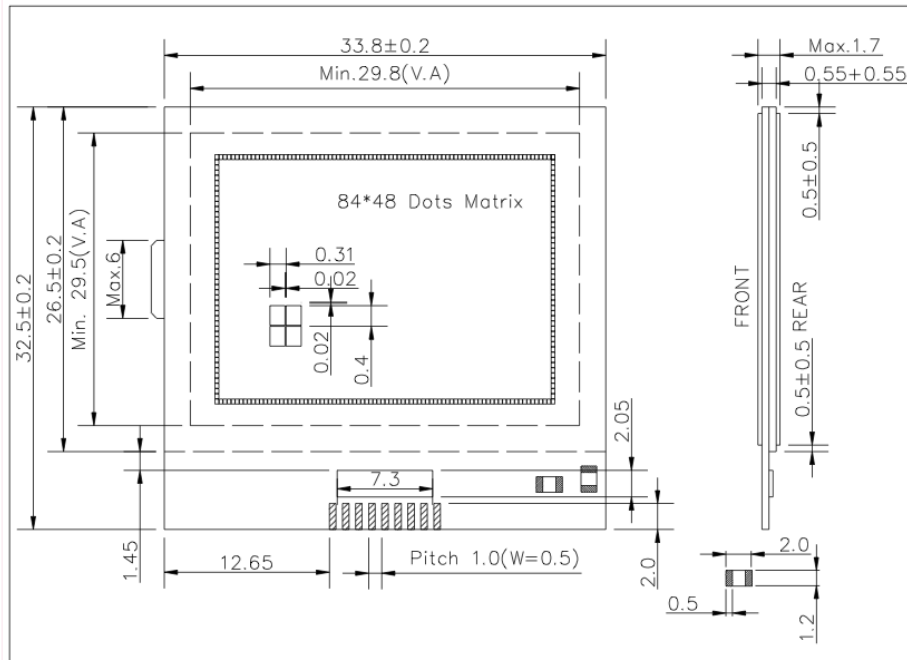
Graphics
Liquid Crystal Display

SPECIFICATIONS

MODULE

Part Number	G-844809G-VA
Format	84 Columns by 48 Rows
Controller	S6B0712
Overall Dimensions	33.8mm x 32.5mm x 1.7mm
Active Area	26.0mm x 19.2mm
Pixel Pitch	310um x 400um
Pixel Size	290um x 400um
Backlight System	None or EL
Driver Attach	Chip on Glass (COG)
Glass Type	STN, FSTN
Display Type	R,TF,TM
Duty	1/48

1.0 DIMENSIONAL DRAWING



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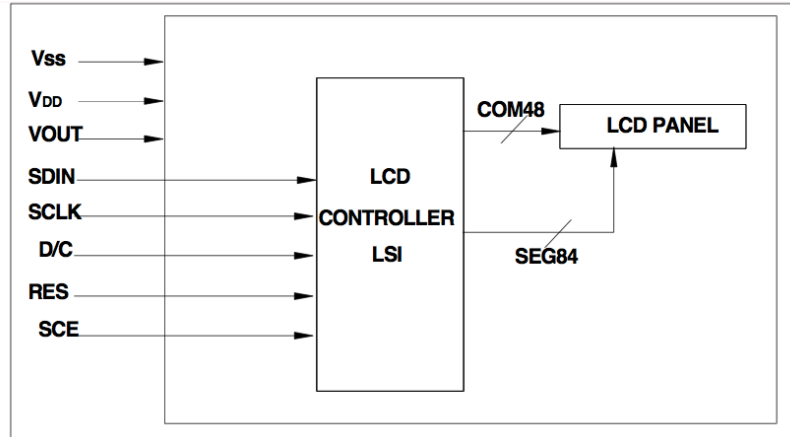


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2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C VDD=2.8.0V±0.25V

Item	Symbol	Condition	Min	Typ	Max	Unit	Pin used	
Operating voltage	VDD	-	2.7	2.8	3.3	V	VDD	
Input voltage	High	V _{IH}	-	0.7 V _{DD}	-	V _{DD}	SCLK,SDIN D/C,SCE, RES,OSC pin	
	Low	V _{IL}	-	V _{SS}	-	0.3 V _{DD}		
Input leakage current	I _{IL}	V _{IN} =V _{DD} or V _{SS}	-1.0	-	+1.0	μA	SEG0 to 83 COM0 to 47	
LCD driver ON resistance	RON	Ta=25°C, I _r =±0.1[mA] RON= ΔV/0.1[]	-	2.0	3.0	k	SEG0 to 83 COM0 to 47	
Frame Frequency	fFR	-	70	80	90	Hz	-	
Oscillator frequency*1)	Internal	fosc	Ta=25°C		13.4	15.4	17.3	KHz
	External	foscx	Duty ratio=1/48		26.8	30.8	34.6	
Dynamic current consumption*2)	IDD1	VDD=2.8V Test pattern	-	-	200	μA	VDD	
	IDD2	VDD=2.8V Checkerboard pattern	-	-	300	μA	VDD	
Static current consumption	IDD3	Power down mode	-	-	10	μA	VDD	

4.0 ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Rating	Unit
Supply voltage range	VDD	-0.3 to +7.0	V
	V _{LCD}	VDD-6.5 to V _{SS}	V
Input voltage range	V _{IN}	-0.3 to VDD+0.3	V
Operating temperature range	T _{OPR}	-20 to 70	°C
Storage temperature range	T _{STR}	-55 to +125	°C

5.0 PIN ASSIGNMENT

PIN No.	Symbol	Description
1	VDD	Recommend +3.0V
2	SCLK	Connect to MPU
3	SDA	Connect to MPU
4	D_C	Connect to MPU
5	SCE	Connect to MPU
6	OSC	Recommend → VDD
7	VSS	GND
8	VOUT	Connect 1.0 μF → VSS
9	/RES	Data bus
10	C2-	Connect 0.47 μF → C2+
11	C2+	--
12	C1-	Connect 0.47 μF → C1+
13	C1+	--

Remark

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

