

Phoenix Display International, Inc.

PRODUCT PREVIEW

80 x 48 Monochrome

TN/STN

Graphics
Liquid Crystal Display

SPECIFICATIONS

MODULE

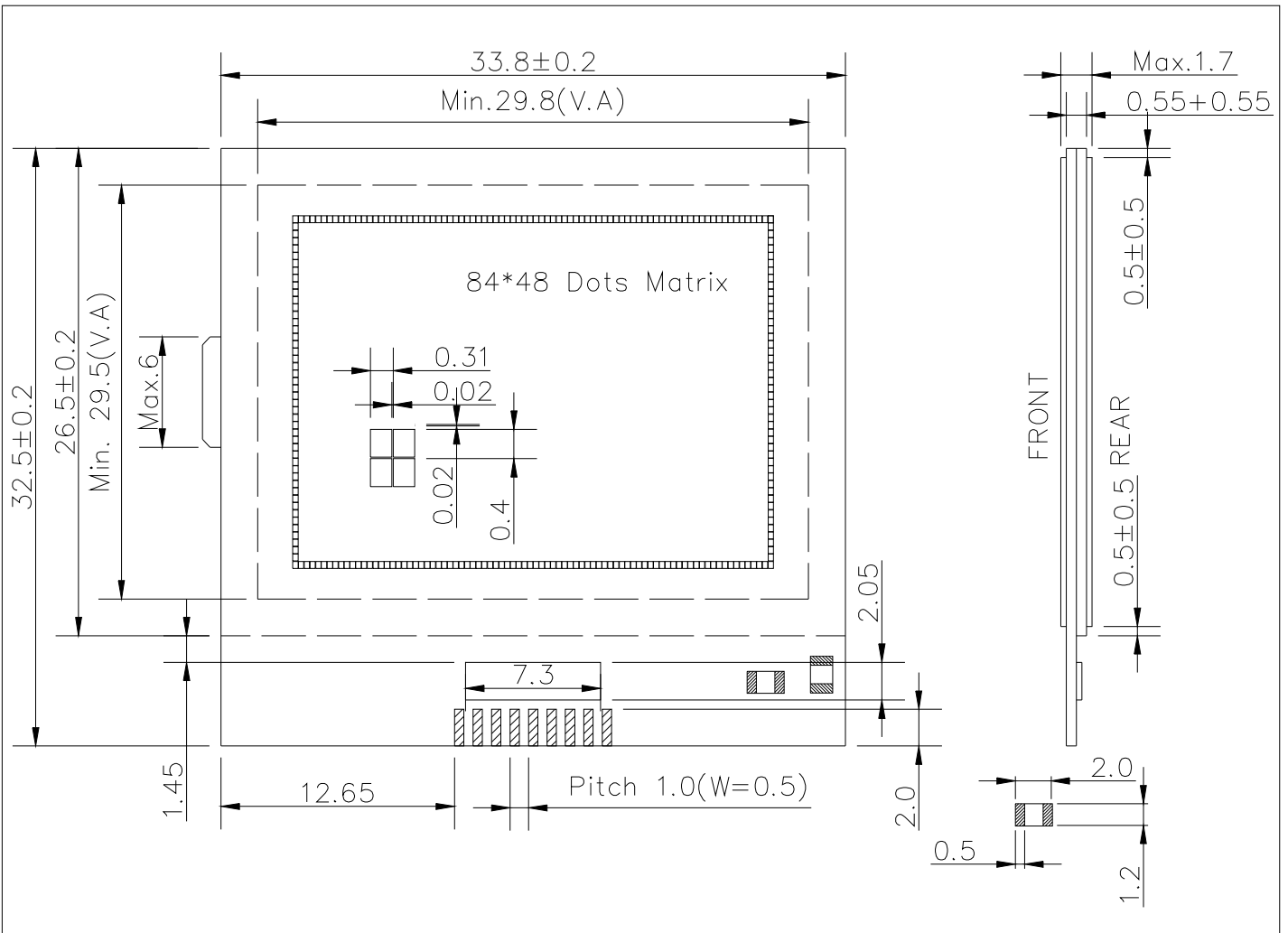
Part Number	G-844809G-VA
Format	84 Columns by 48 Rows
Controller	S6B0712
Overall Dimensions	33.8mm x 32.5mm x 1.7mm
Active Area	26.0mm x 19.2mm
Pixel Pitch	310um x 400um
Pixel Size	290um x 380um
Backlight System	None or EL
Driver Attach	Chip on Glass (COG)
Display Type	FSTN
Duty	1/48
Bias	1/8



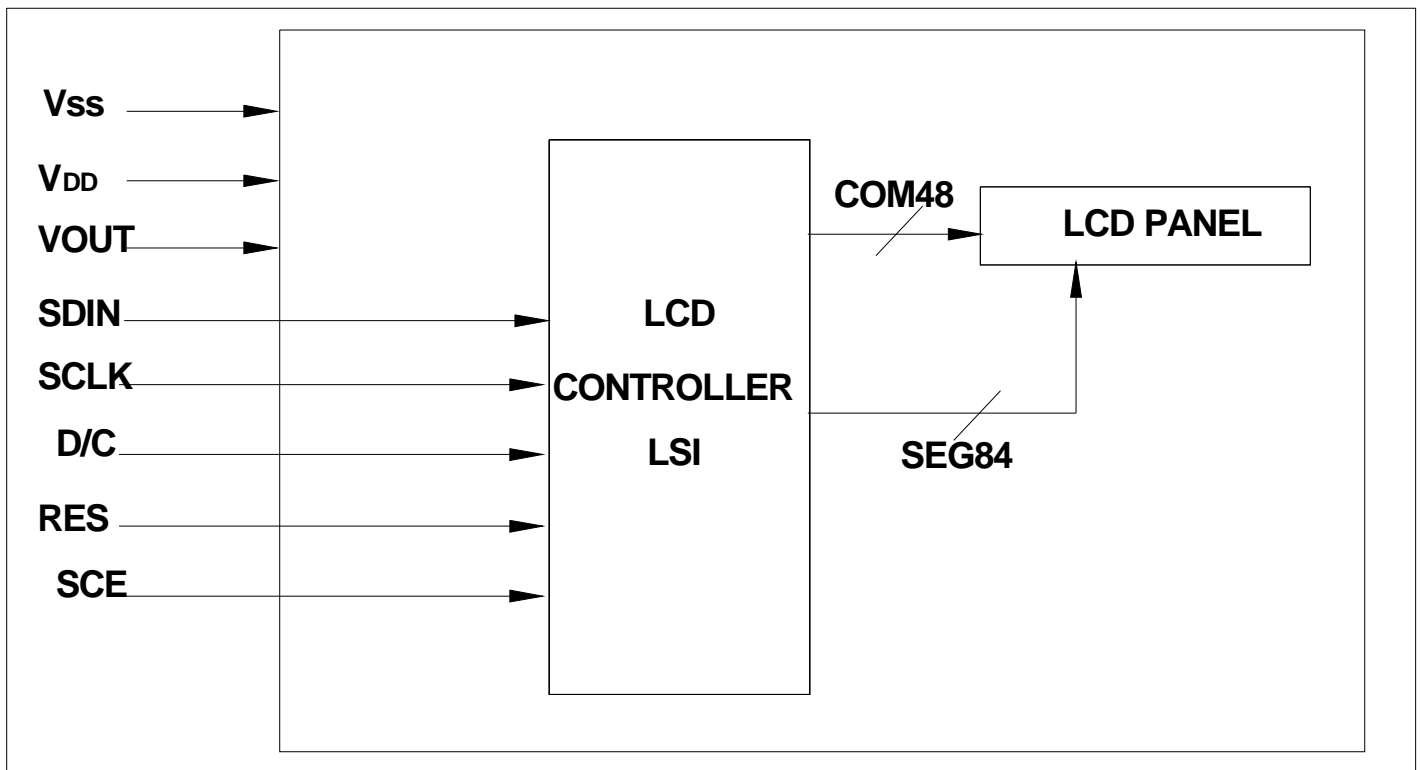
G-844809G-VA

1/48 DUTY, 1/8 BIAS
84x48 DOTS

1.0 DIMENSIONAL DRAWING



2.0 BLOCK DIAGRAM



3.0 ELECTRICAL CHARACTERISTICS Ta=25 °C V_{DD}=2.8.0V±0.25V

Item	Symbol	Condition	Mim	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	
LCD driver ON resistance	RON	Ta=25°C,I _r =±0.1[mA] RON= $\Delta V/0.1$ []	-	2.0	3.0	k	SEG0 to 83 COM0 to 47
Frame Frequency	f _{FR}	-	70	80	90	Hz	-
Oscillator frequency*1)	Internal	Ta=25°C Duty ratio=1/48	13.4	15.4	17.3	KHz	OSC
	External		f _{oscx}	26.8	30.8		
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}	V _{DD} -6.5 to V _{SS}	V
Input voltage range	V _{IN}	-0.3 to V _{DD} +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.