

PG320240A-L (320x240) Graphic LCD Display

Features	Absolute Maximum Ratings at T _A = 25 °C				
	Item	Symbol	Min	Max	Unit
	Power Supply (Logic)	Vdd-Vss	0	7.0	V
	Power Supply (LCD)	Vdd-Vo	0	30.0	V
	Input Voltage	Vi	0	Vdd	V
	Operating Temperature (Standard)	Topr	0	50	°C
	Storage Temperature (Standard)	Tstg	- 20	70	°C
	Extended Operating Temperature	Topr	- 20	70	°C
	Extended Storage Temperature	Tstg	- 30	80	°C

Electrical Characteristics at T _A = 25 °C, Vdd=5V+0.25V					
Item	Symbol	Min	Typ	Max	Unit
Power Supply (Logic)	Vdd-Vss	4.5	5.0	5.5	V
Supply Current	Idd	—	16.0	25.0	mA
LCD Driving Voltage	Vdd -Vo	22.4	23.5	24.3	V
Input Voltage “H”	Vih	2.2	—	Vdd	V
Input Voltage “L”	Vil	—	—	0.6	V
Output Voltage “H”	Voh	2.4	—	—	V
Output Voltage “L”	Vol	—	—	0.4	V

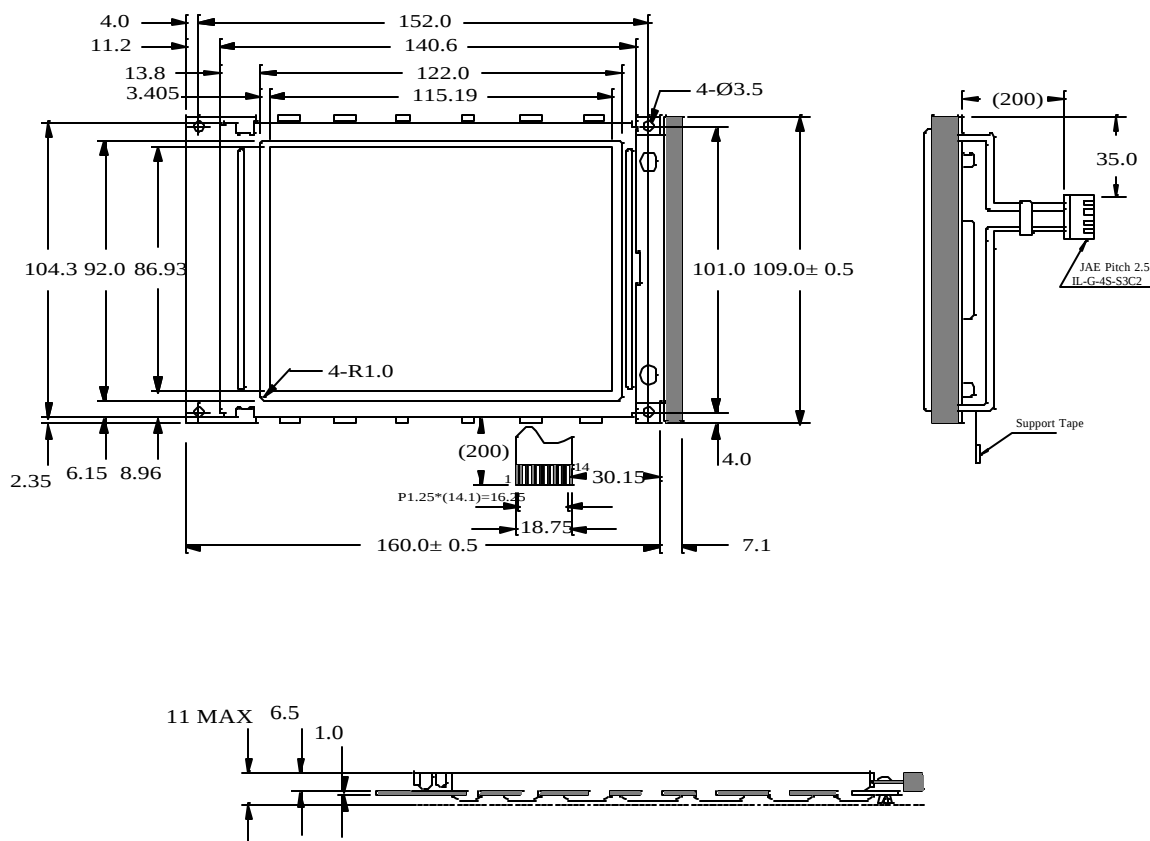
Interface Pin Connection					
No	Symbol	Function	No	Symbol	Function
1	DB0	Data Bit 0 (H/L)	11	Vss	Power Supply (GND)
2	DB1	Data Bit 1 (H/L)	12	Vee	Negative Power Supply Voltage
3	DB2	Data Bit 2 (H/L)	13	Vo	Power Supply for LCD Panel
4	DB3	Data Bit 3 (H/L)	14	FGND	Frame Ground
5	Dispoff	Display off, Active Low (H/L)	15		
6	FLM	Frame Start Signal (H)	16		
7	NC	No Connection	17		
8	CL1	Common Driver Data Shift Signal (H to L)	18		
9	CL2	Clock Pulse for Segment Shift Register (H to L)	19		
10	Vdd	Power Supply (+5V)	20		

LED Backlight Specifications			
Forward Voltage	Forward Current	Power Dissipation	Peak Wavelength
(Typ)	(Max)	(Max)	(Typ)

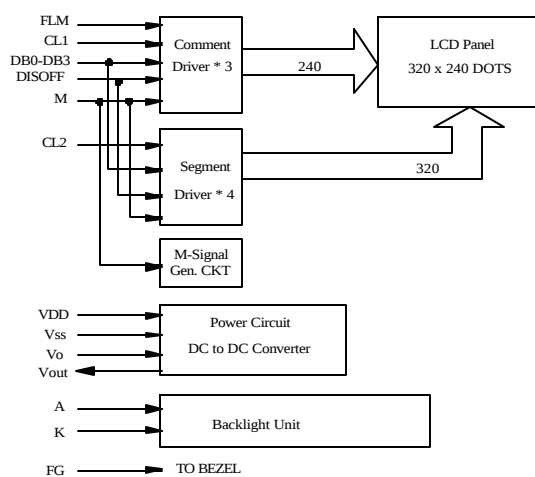
Mechanical Specifications					
Item	Overall Size	Viewing Area	Active Area	Dot Size	Dot Pitch
Specifications	160.0W x 109.0 x 11.0	122.0W x 92.0H	115.19W x 86.39H	0.35W x 0.35H	0.36W x 0.36H

All dimensions are in mm. Tolerance is ± 0.3 Unless otherwise specified

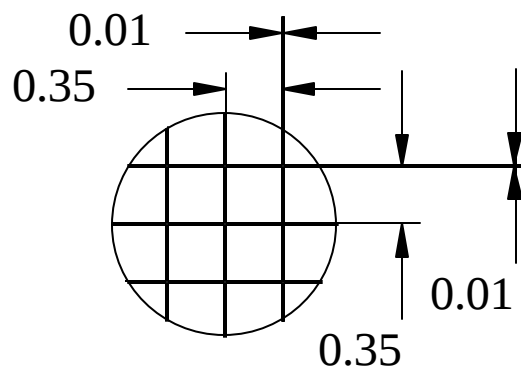
PG320240A-L (320x240) Graphic LCD Display



LCD Block Diagram



Dot Layout



All dimensions are in mm. Tolerance is ± 0.3 Unless otherwise specified

PG320240B-L (320x240) Graphic LCD Display

Features	Absolute Maximum Ratings at T _A = 25 °C				
	Item	Symbol	Min	Max	Unit
	Power Supply (Logic)	Vdd-Vss	0	7.0	V
	Power Supply (LCD)	Vdd-Vo	0	30.0	V
	Input Voltage	Vi	0	Vdd	V
	Operating Temperature (Standard)	Topr	0	50	°C
	Storage Temperature (Standard)	Tstg	- 20	70	°C
	Extended Operating Temperature	Topr	- 20	70	°C
	Extended Storage Temperature	Tstg	- 30	80	°C

*320 Dots x 240 Dots
*View Angle 12H or 6H
*TN or STN Fluid
*Extended Temperature Range available
*8 Bit Parallel Interface
*CCFL Backlight available

Electrical Characteristics at T_A = 25 °C, Vdd=5V+0.25V

Item	Symbol	Min	Typ	Max	Unit
Power Supply (Logic)	Vdd-Vss	4.5	5.0	5.5	V
Supply Current	Idd	—	16.0	25.0	mA
LCD Driving Voltage	Vdd -Vo	22.4	23.5	24.3	V
Input Voltage “H”	Vih	2.2	—	Vdd	V
Input Voltage “L”	Vil	—	—	0.6	V
Output Voltage “H”	Voh	2.4	—	—	V
Output Voltage “L”	Vol	—	—	0.4	V

Interface Pin Connection

No	Symbol	Function	No	Symbol	Function
1	Vss	Power Supply (GND)	11	DB4	Data Bus Line 4 (H/L)
2	Vdd	Power Supply (+5V)	12	DB5	Data Bus Line 5 (H/L)
3	Vo	Contrast Adjustment Voltage	13	DB6	Data Bus Line 6 (H/L)
4	RD	Read (L)	14	DB7	Data Bus Line 7 (H/L)
5	WR	Write (L)	15	CS	Chip Signal (L)
6	Ao	Data Type Select (H/L)	16	RST	Reset Signal (H/L)
7	DB0	Data Bus Line 0 (H/L)	17	Vout	Power Supply Voltage for LCD
8	DB1	Data Bus Line 1 (H/L)	18	FG	For Ground
9	DB2	Data Bus Line 2 (H/L)	19	NC	No Connection
10	DB3	Data Bus Line 3 (H/L)	20	NJC	No Connection

LED Backlight Specifications

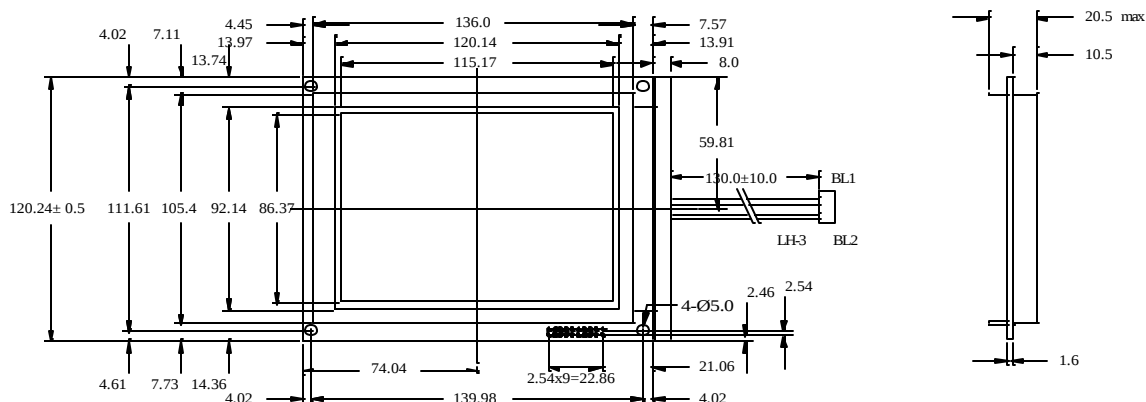
Forward Voltage	Forward Current	Power Dissipation	Peak Wavelength
(Typ)	(Max)	(Max)	(Typ)

Mechanical Specifications

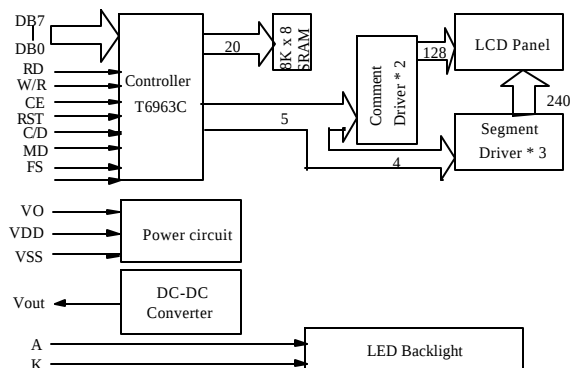
Item	Overall Size	Viewing Area	Active Area	Dot Size	Dot Pitch
Specifications	148.0W x 120.2 x 20.5	120.14W x 92.14H	115.17W x 86.37H	0.33W x 0.33H	0.36W x 0.36H

All dimensions are in mm. Tolerance is ± 0.3 Unless otherwise specified

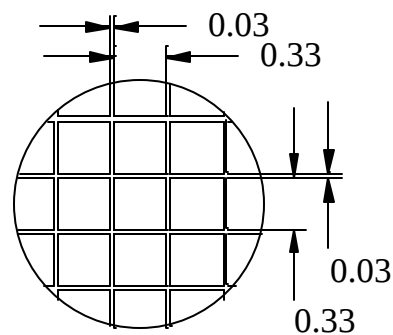
PG320240B-L (320x240) Graphic LCD Display



LCD Block Diagram



Dot Layout



PG320240C-L (320x240) Graphic LCD Display

Features	Absolute Maximum Ratings at T _A = 25 °C				
	Item	Symbol	Min	Max	Unit
	Power Supply (Logic)	Vdd-Vss	0	7.0	V
	Power Supply (LCD)	Vdd-Vo	0	30.0	V
	Input Voltage	Vi	0	Vdd	V
	Operating Temperature (Standard)	Topr	0	50	°C
	Storage Temperature (Standard)	Tstg	- 20	70	°C
	Extended Operating Temperature	Topr	- 20	70	°C
	Extended Storage Temperature	Tstg	- 30	80	°C

Electrical Characteristics at T _A = 25 °C, Vdd=5V+0.25V					
Item	Symbol	Min	Typ	Max	Unit
Power Supply (Logic)	Vdd-Vss	4.5	5.0	5.5	V
Supply Current	Idd	—	16.0	25.0	mA
LCD Driving Voltage	Vdd -Vo	22.4	23.5	24.3	V
Input Voltage “H”	Vih	2.2	—	Vdd	V
Input Voltage “L”	Vil	—	—	0.6	V
Output Voltage “H”	Voh	2.4	—	—	V
Output Voltage “L”	Vol	—	—	0.4	V

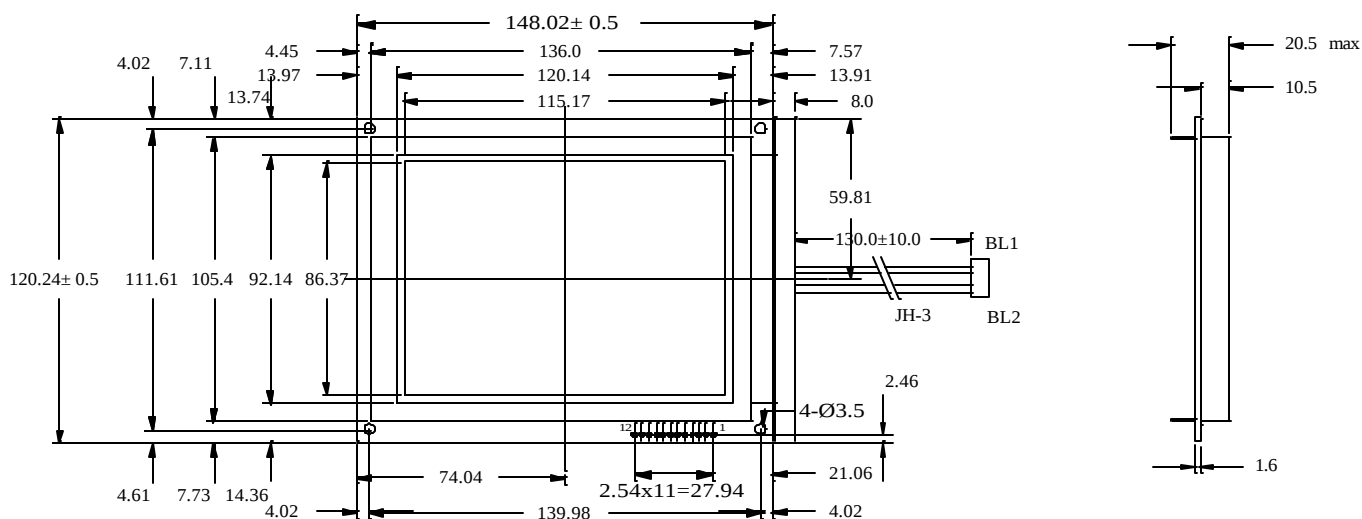
Interface Pin Connection					
No	Symbol	Function	No	Symbol	Function
1	Vss	Power Supply (GND)	11	DB3	Data Bit 4 (H/L)
2	Vdd	Power Supply (+5V)	12	Vout	Power Supply for LCD Panel
3	Vo	Power Supply for LCD Panel	13		
4	FLM	Frame Signal (H)	14		
5	CL1	CL1 Latches Serial Data in Shift Register (H,H-L)	15		
6	CL2	Clock Signal Shifting Serial Data (H,H-L)	16		
7	M	Control Signal for AC Driving (H/L)	17		
8	DB0	Data Bit 1 (H/L)	18		
9	DB1	Data Bit 2 (H/L)	19		
10	DB2	Data Bit 3 (H/L)	20		

LED Backlight Specifications			
Forward Voltage	Forward Current	Power Dissipation	Peak Wavelength
(Typ)	(Max)	(Max)	(Typ)

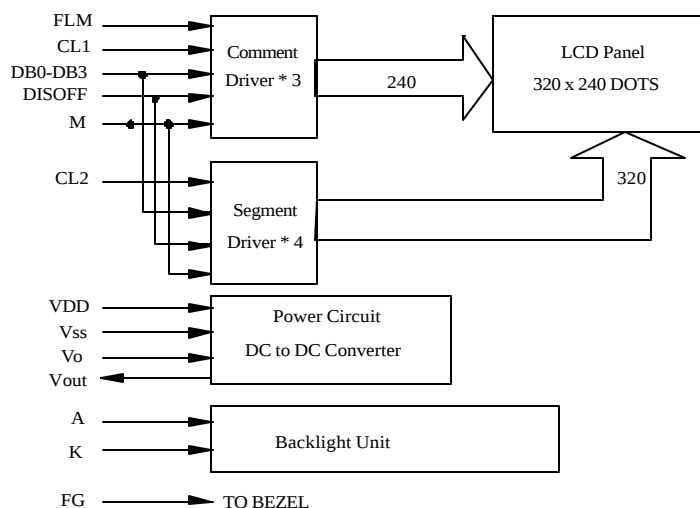
Mechanical Specifications					
Item	Overall Size	Viewing Area	Active Area	Dot Size	Dot Pitch
Specifications	148.0W x 120.2H x 20.5	120.14W x 92.14H	115.17W x 86.37H	0.33W x 0.33H	0.36W x 0.36H

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PG320240C-L (320x240) Graphic LCD Display



Block Diagram



Dot Layout

