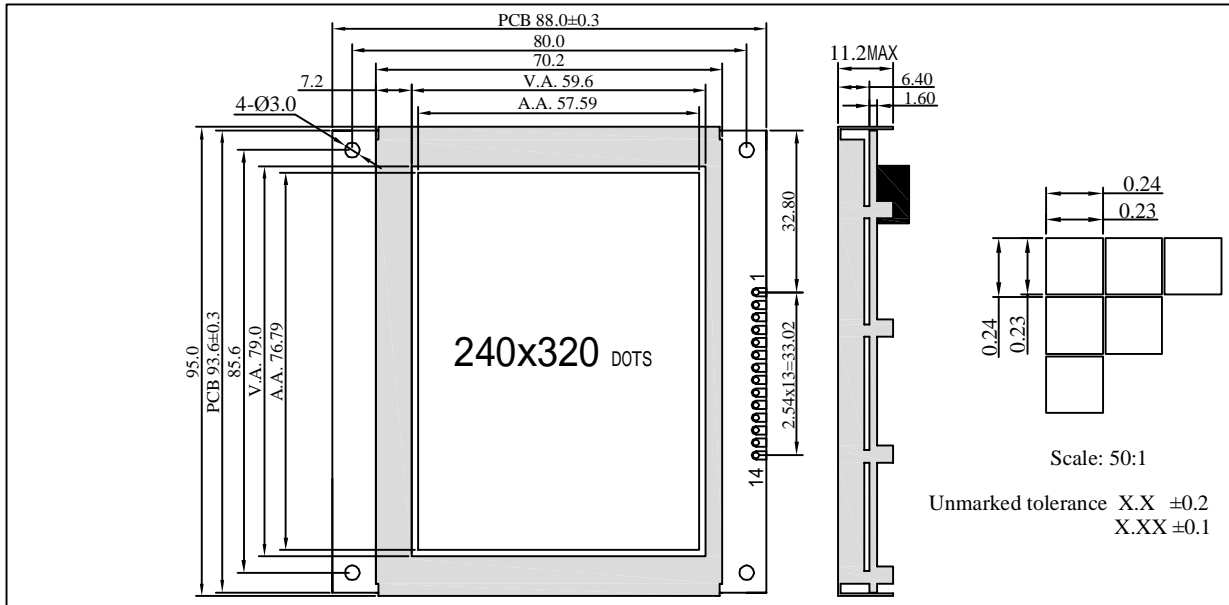


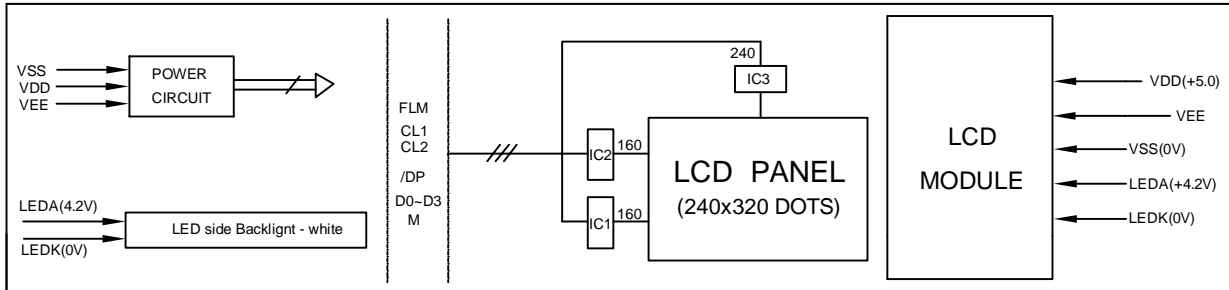
ZL240320A1 Series

240x320 DOTS
1/240 DUTY, 1/17 BIAS
GRAPHIC-COB

OUTLINE DIMENSIONS



BLOCK DIAGRAM & POWER SUPPLY



MECHANICAL SPECIFICATIONS & FEATURE

item	Normal Dimensions(mm)	Feature	
Module Size(W*H*T)	88.0x93.6x11.2MAX	LCD Type	STN FSTN
View Area(W*H)	79.0x59.6	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
Dots x Dots (W*H)	240x320	View Angle	6 O'clock , 12 O'clock
Dot Pitch (W*H)	0.24x0.24	Display Type	Positive Type,Negative Type
Dot Size (W*H)	0.23x0.23	Rear Polarizer	Transmissive,Reflective ,Transflective
-----	-----	Operating Temperature	0°C ~50°C , -20°C~70°C
-----	-----	Backlight	LED: Yellow, Bule,White,Green

ELECTRICAL CHARACTERISTICS

item	Symbol	Test Condition	Min.	Type.	Max.	Unit
Operating Voltage	V _{dd}	T _a =25°C	---	5.0V	---	V
Operating Voltage for LCD	V _{lcd}	T _a =25°C	---	4.6V	---	V
Supply Current	I _{dd}	T _a =25°C, V _{dd} =5.0V	---	2.0	3.0	mA
Supply Current for Backlight	I _f	T _a =25°C, V _f =4.2V	---	400	---	mA

INTERFACE PIN CONNECTIONS

Pin No	Symbol	Level	Description
1	FLM	---	Frame start signal
2	CL1	---	Data lathch pulse
3	CL2	---	Data shift pulse
4	/DP	---	Display ON/OFF
5	VDD	H	Power supply for logic (+5.0V)
6	VSS	L	Ground for logic(0V)
7	VEE	---	Negative Voltage Output
8-11	DB0-DB3	H/L	Data bus lines
12	M	---	AC signal for LCD drivng
13	LEDA	H	Power supply for backlight(4.2V)
14	LEDK	---	Power supply for backlight(0V)

REMARK

1.Negative type LCD colour : Bule. 2.File Version:01