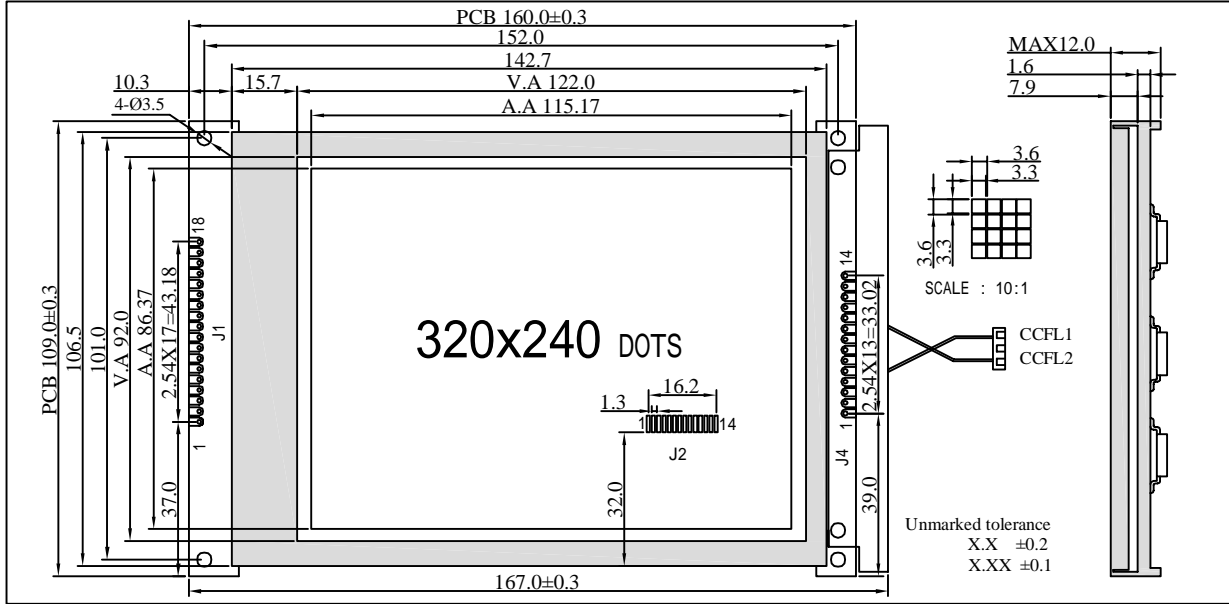


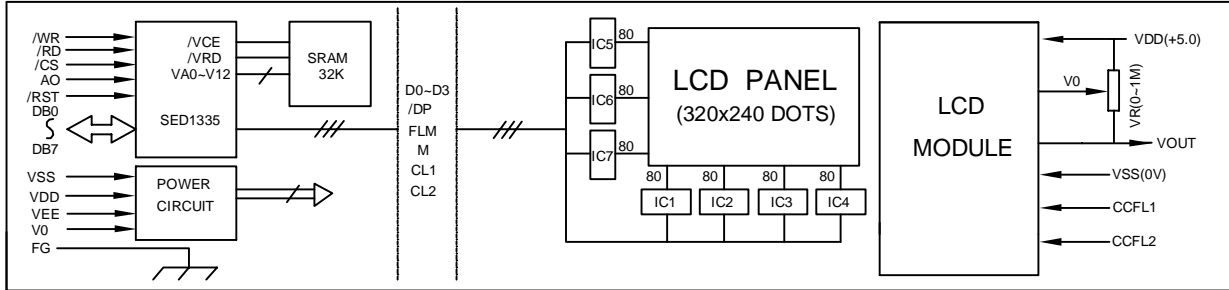
# ZL320240A2 Series

320x240 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)	167.0x109.0x12.0MAX	LCD Type	STN FSTN
View Area(W*H)	122.0x92.0	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
Dots x Dots (W*H)	320x240	View Angle	6 O'clock , 12 O'clock
Dot Pitch (W*H)	0.36x0.36	Display Type	Positive Type,Negative Type
Dot Size (W*H)	0.33x0.33	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	Vdd	Ta=25°C	---	5.0V	---	V
Operating Voltage for LCD	Vlcd	Ta=25°C	---	4.6V	---	V
Supply Current	Idd	Ta=25°C,Vdd=5.0V	---	2.0	3.0	mA
Supply Current for Backlight	If	Ta=25°C,Vf=4.2V	---	400	---	mA

## INTERFACE PIN CONNECTIONS

Pin No	Symbol	Level	Description	Pin No	Symbol	Level	Description
1	VSS	L	Ground for logic(0V)	1-4	DB0-DB3	H/L	Data bus lines
2	VDD	H	Power supply for logic (+5.0V)	5	/DP	---	Display ON/OFF
3	V0	---	Power supply for LCD drive	6	FLM	H	Frame start signal
4	/WR	L	Write signal	7	M	H/L	AC signal for LCD drivng
5	/RD	L	Read signal	8	CL1	H/L	Data latch pulse
6	/CS	L	Chip Selection	9	CL2	H/L	Data shift pulse
7	A0	H/L	Registr selection	10	VDD	H	Power supply for logic (+5.0V)
8	/RST	L	Reset signal	11	VSS	L	Ground for logic(0V)
9-16	DB0-DB7	H/L	Data bus lines	12	VOUT	---	Negative voltage Output
17	NC	---	No connection	13	V0	---	Power supply for LCD drive
18	VOUT	---	Negative voltage Output	14	FG	L	Frame Ground

## REMARK

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