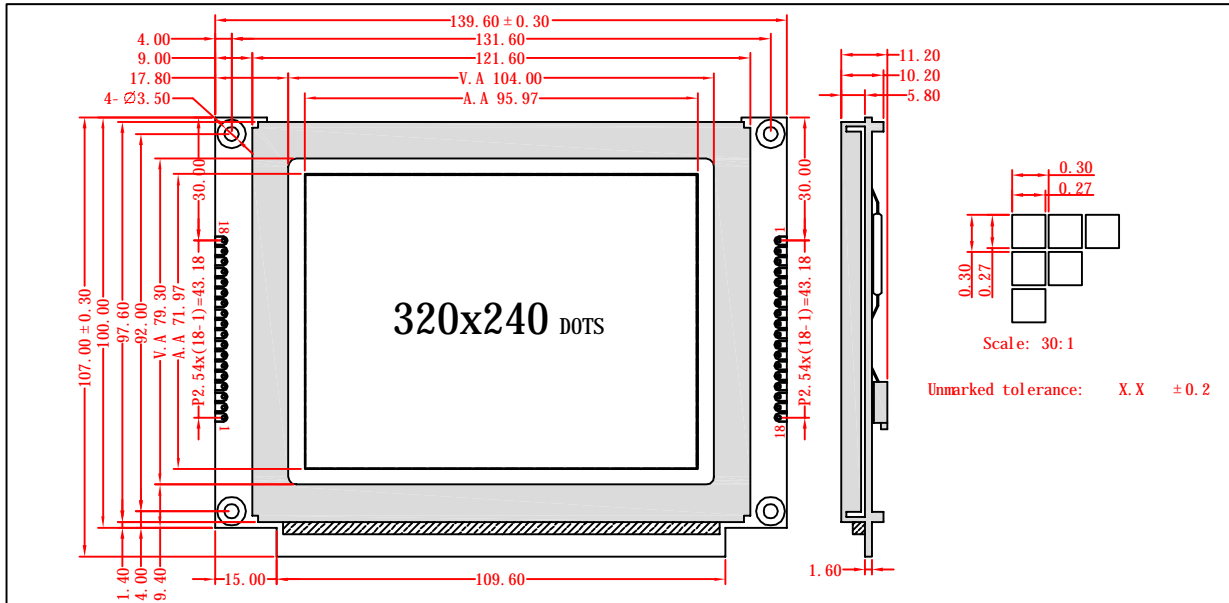


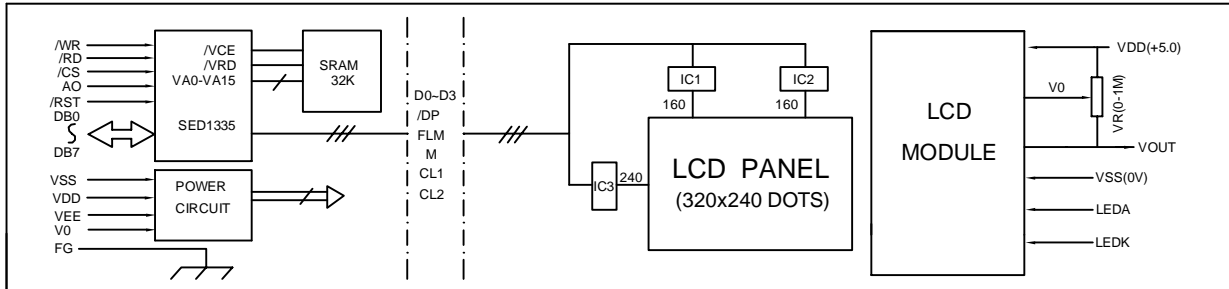
ZL320240B4 Series

320x240 DOTS
1/240 DUTY, 1/17 BIAS
GRAPHIC-TAB

OUTLINE DIMENSIONS



BLOCK DIAGRAM & POWER SUPPLY



MECHANICAL SPECIFICATIONS & FEATURE

item	Normal Dimensions(mm)	Feature	
Module Size(W*H*T)	139.6x107.0x11.2MAX	LCD Type	FSTN
View Area(W*H)	104.0x79.3	LCD Colour	FSTN: Gray, Blue
Dots x Dots (W*H)	320x240	View Angle	6 O'clock
Dot Pitch (W*H)	0.30x0.30	Display Type	Positive Type, Negative Type
Dot Size (W*H)	0.27x0.27	Rear Polarizer	Transmissive, Transflective
-----	-----	Operating Temperature	0°C ~ 50°C, -20°C ~ 70°C
-----	-----	Backlight	LED: White

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

CN1: (1~18)

CN2: (1~18)

Pin No	Symbol	Level	Description	Pin No	Symbol	Level	Description
1	VSS	L	Ground for logic(0V)	1	FLM	H	Frame start signal
2	VDD	H	Power supply for logic (+5.0V)	2	CL1	H/L	Data latch pulse
3	V0	---	Power supply for LCD drive	3	CL2	H/L	Data shift pulse
4	/WR	L	Write signal	4	M	H	AC signal LCD driving
5	/RD	L	Read signal	5	V0	-	Power supply for LCD drive
6	/CS	L	Chip Selection	6	VDD	H	Power supply for logic(+5.0V)
7	A0	H/L	Register selection	7	VSS	L	Ground for logic(0V)
8	/RST	L	Reset signal	8	VOUT	-	Negative voltage Output
9-16	DB0-DB7	H/L	Data bus lines	9-12	DO-D3	H/L	Data bus lines
17	NC	---	No connection	13	DISP	-	Display ON/OFF
18	VEE	---	Negative voltage Output	14-16	NC	-	No connection
				17	BL-E	-	Power supply for Backlight(+5.0V)
				18	VOUT	-	Negative voltage Output

REMARK

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