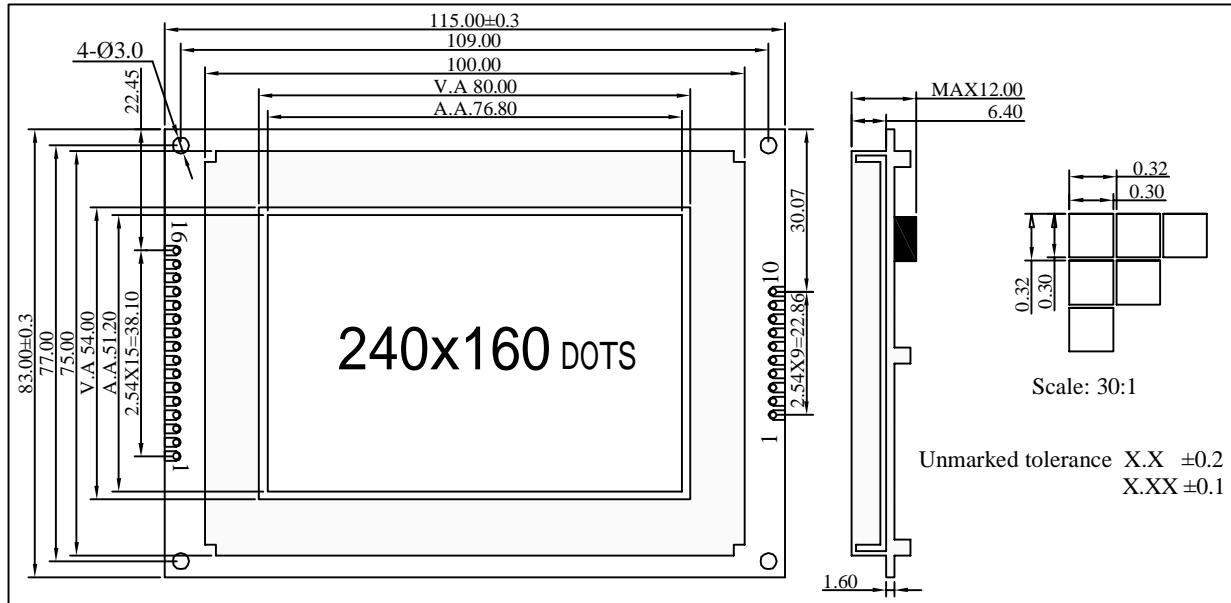


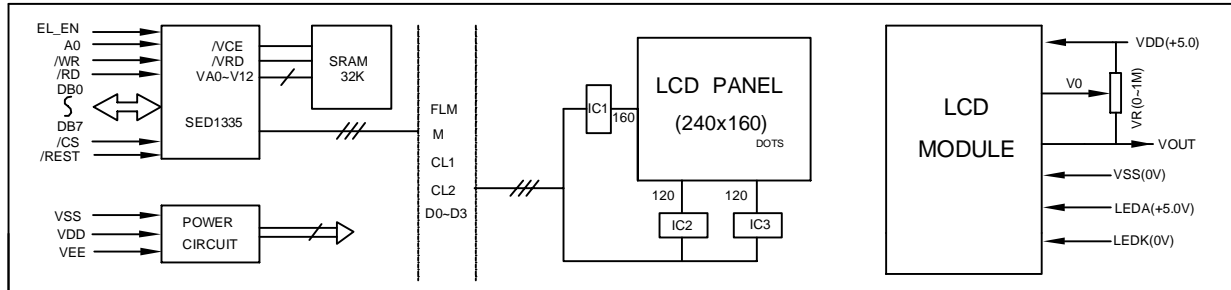
ZL240160B1 Series

240x160 DOTS
1/160 DUTY, 1/13 BIAS
GRAPHIC-COB

OUTLINE DIMENSIONS



BLOCK DIAGRAM & POWER SUPPLY



MECHANICAL SPECIFICATIONS & FEATURE

item	Normal Dimensions(mm)	Feature	
Module Size(W*H*T)	115.0x83.0x12.0MAX	LCD Type	STN FSTN
View Area(W*H)	80.0x54.0	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
Dots x Dots (W*H)	240x160	View Angle	6 O'clock , 12 O'clock
Dot Pitch (W*H)	0.32x0.32	Display Type	Positive Type,Negative Type
Dot Size (W*H)	0.30x0.30	Rear Polarizer	Transmissive,Reflective ,Transflective
-----	-----	Operating Temperature	0°C ~50°C , -20°C~70°C
-----	-----	Backlight	LED: Yellow, Blue,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	---	Ground for logic(0V)	1	VSS	---	Ground for logic(0V)
2	VDD	---	Power supply for logic (+5.0V)	2	VDD	---	Power supply for logic (+5.0V)
3	EL_EN	H	EL control pin	3	FLM	---	Frame start signal
4	A0	H/L	Registr selection	4	M	---	AC signal for LCD drivng
5	/WR	L	Write signal	5	CL1	---	Data lach pulse
6	/RD	L	Read signal	6	CL2	---	Data shift pulse
7-14	DB0-DB7	H/L	Data bus lines	7-10	DB0-DB3	H/L	Data bus lines
15	/CS	L	Chip Selection				
16	/RST	L	Reset signal				

REMARK

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