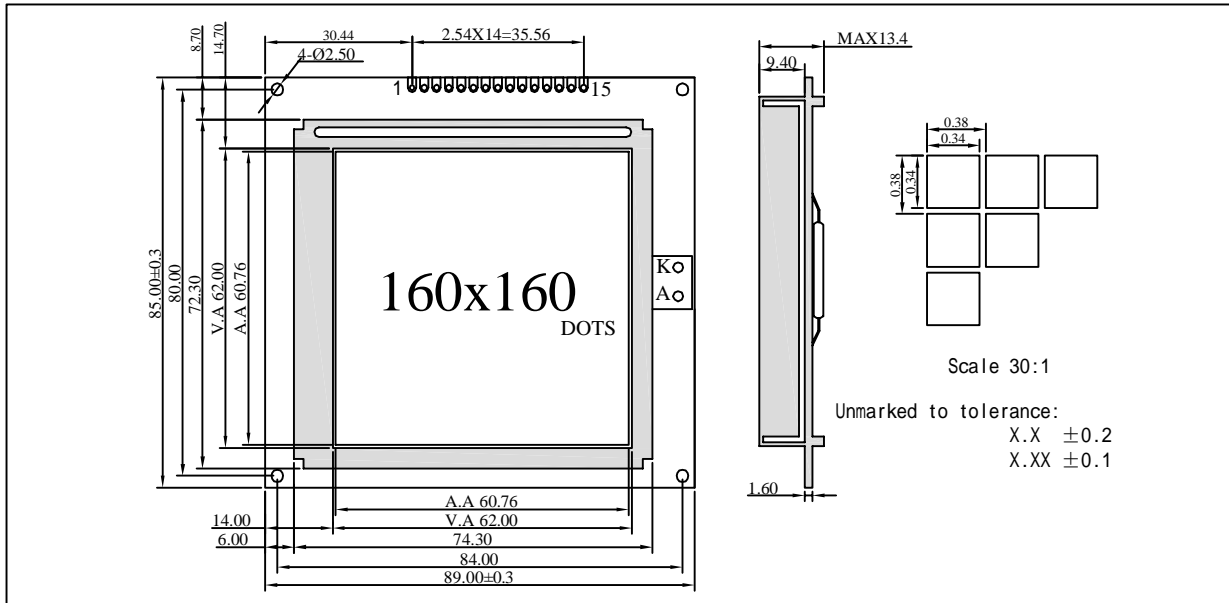


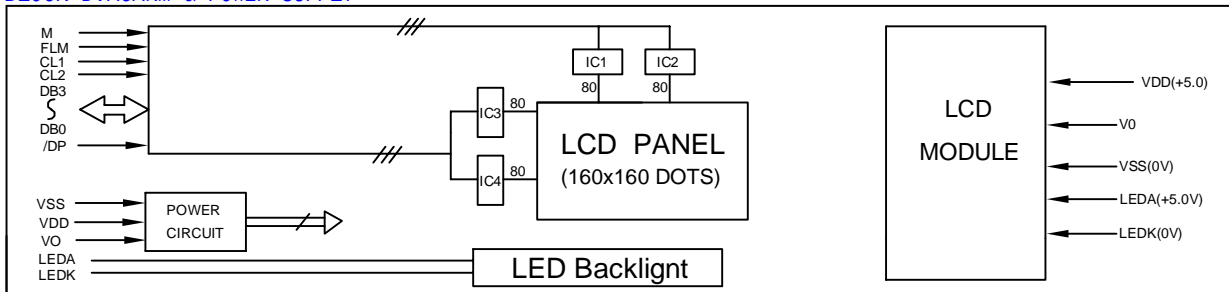
ZL160160A1 Series

160x160 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)	89.0x85.0x13.4MAX	LCD Type	STN FSTN
View Area(W*H)	62.0x62.0	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
Dots x Dots (W*H)	160x160	View Angle	6 O'clock , 12 O'clock
Dot Pitch (W*H)	0.38x0.38	Display Type	Positive Type,Negative Type
Dot Size (W*H)	0.34x0.34	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	---	12.0V	---	V
Supply Current	Idd	Ta=25°C,Vdd=5.0V	---	9.0	15.0	mA
Supply Current for Backlight	If	Ta=25°C,Vf=4.2V	---	100	---	mA

INTERFACE PIN CONNECTIONS

Pin No.	Symbol	Level	Description
1	VSS	---	Ground for logic(0V)
2	M	H/L	Alternatbe signal for LCD driver
3	FLM	H/L	The signal indicate the beginning of each frame
4	CL1	H/L	Datd latch clock
5	CL2	H/L	Datd shift clock
6-9	DB3-DB0	H/L	Data Bus lines
10	VEE	---	Negative Voltage Output
11	VDD	---	Power supplay for logic (+5.0V)
12	VO	---	Supply power for LCD drive
13	/DP	---	Display ON/OFF
14	LEDK	---	Power supply for backlight(0V)
15	LEDA	---	Power supply for backlight(+5.0V)

REMARK

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