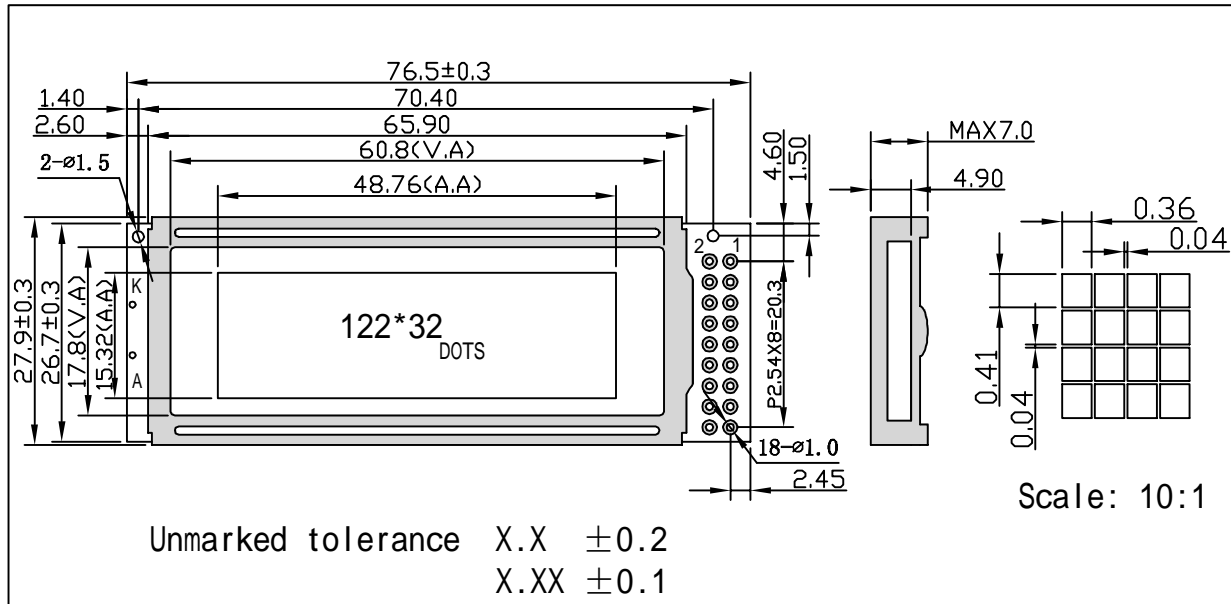


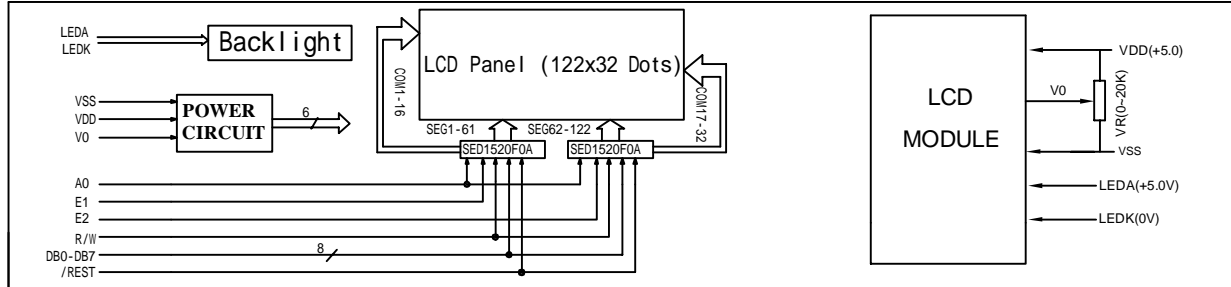
ZL12232A1 Series

122x32 DOTS
1/32 DUTY, 1/6 BIAS
GRAPHIC-COB

OUTLINE DIMENSIONS



BLOCK DIAGRAM & POWER SUPPLY



MECHANICAL SPECIFICATIONS & FEATURE

item	Normal Dimensions(mm)	Feature	
Module Size(W*H*T)	76.5x27.9x7MAX	LCD Type	STN
View Area(W*H)	60.8x17.8	LCD Colour	STN:Yellow-Green
DotsxDots(W*H)	122x32	View Angle	6 O'clock
Dot Pitch(W*H)	0.40x0.45	Display Type	Positive Type
Dot Size(W*H)	0.36x0.41	Rear Polarizer	Transflective
---	---	Operating Temperature	0°C ~50°C
---	---	Backlight	side LED: Yellow

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	---	4.5V	---	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	---	150	---	mA

INTERFACE PIN CONNECTIONS

Pin No.	Symbol	Level	Description
1	VDD	--	Power supply for Logic
2	VSS	--	Ground for Logic
3	V0	--	Power supply for LCD drive
4	/RST	L	Reset signal
5	E1	H/L → L	Enable signal for IC1 (left half of the panel)
6	E2	H/L → L	Enable signal for IC2 (right half of the panel)
7	R/W	H/L	Read/write selection (H:Read,L:Write)
8	A0	H/L	Register selection (H:Data register,L:Instruction register)
9-16	DB0-DB7	H/L	Data Bus Lines
17	LEDK	--	Power supply for backlight(0V)
18	LEDA	--	Power supply for side backlight(+5.0V)

REMARK

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