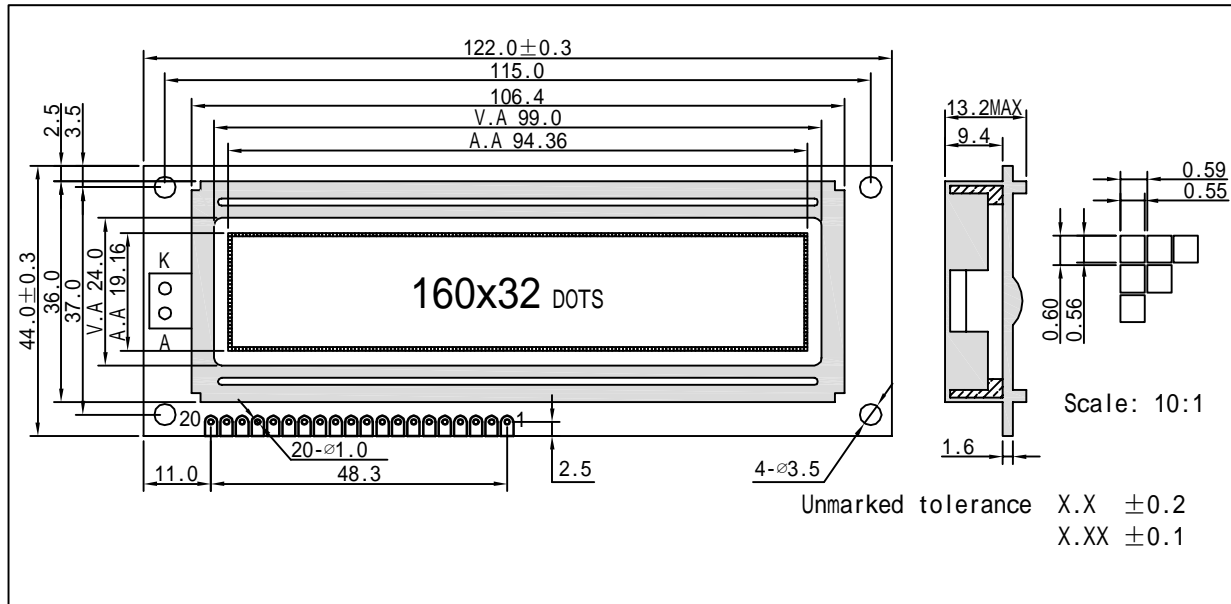


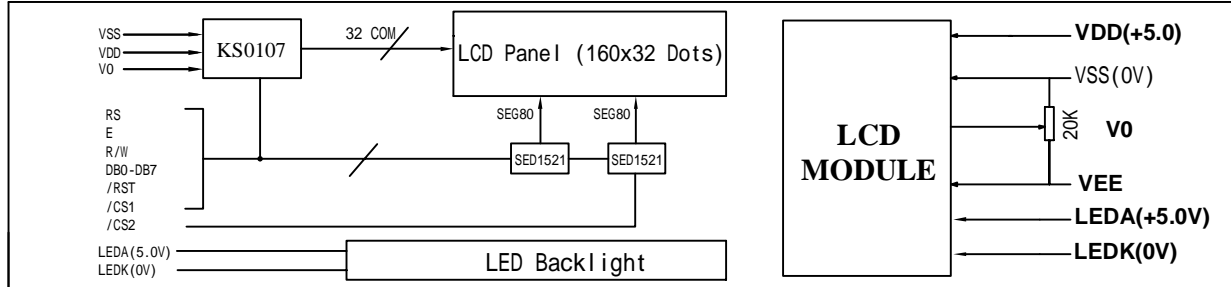
ZL16032A2 Series

160x32 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)	122.0x44.0x13.2MAX	LCD Type	STN FSTN
View Area(W*H)	99.0x24.0	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
DotsxDots(W*H)	160x32	View Angle	6 O'clock , 12 O'clock
Dot Pitch(W*H)	0.59x0.60	Display Type	Positive Type,Negative Type
Dot Size(W*H)	0.55x0.56	Rear Polarizer	Transmissive,Reflective ,Transflective
---	---	Operating Temperature	0°C -50°C
---	---	Backlight	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	RS	H/L	Register selection (H:Data register,L:Instruction register)
2	/CS2	L	Chip select signal for right Half of the panel
3	/CS1	L	Chip select signal for left Half of the panel
4	E	H/L→L	Enable signal for LCM
5	R/W	H/L	Read/write selection (H:Read,L:Write)
6	VDD	H	Power supply for Logic (+5.0V)
7	VSS	L	Ground for Logic
8-15	DB0-DB7	H/L	Data Bus Lines
16	/RST	L	Reset signal
17	V0	---	Power supply for LCD drive
18	VEE	---	Negative voltage output
19	LEDA	H	Power supply for backlight(+5.0V)
20	LEDK	L	Power supply for backlight(0V)

REMARK

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