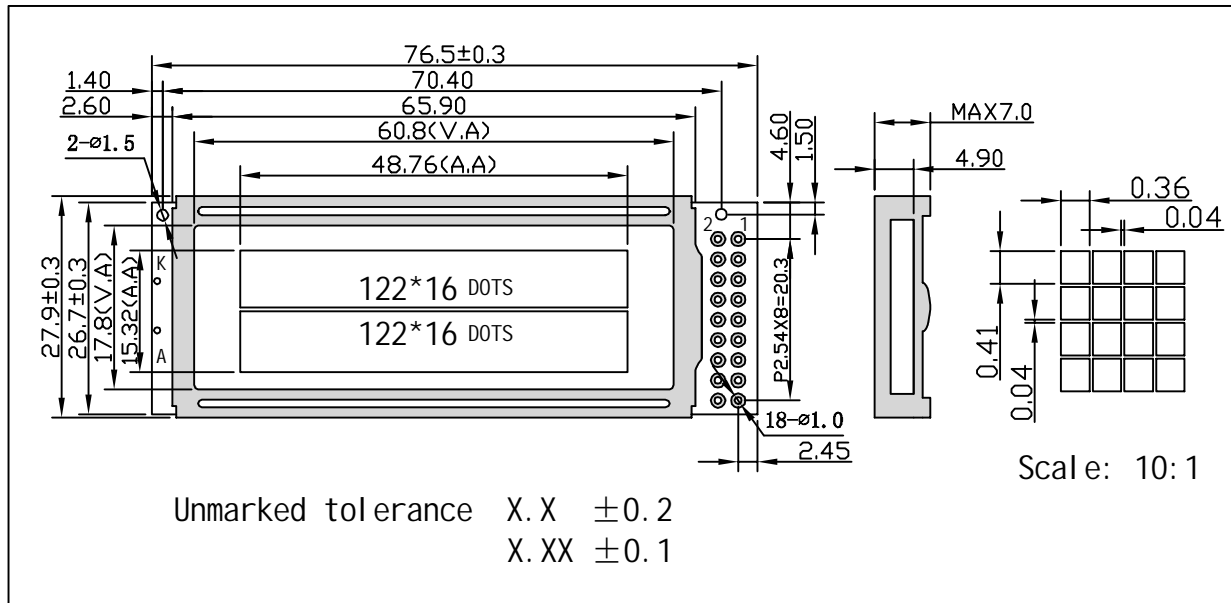


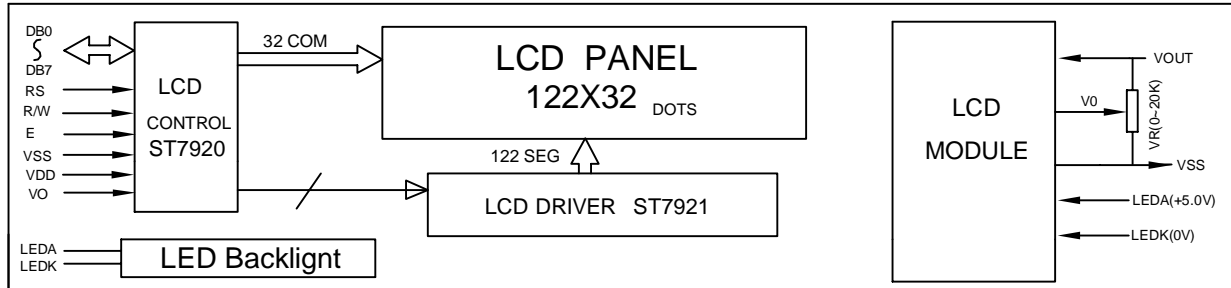
ZL12232A4 Series

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)	84.0x44.0x13.4MAX	LCD Type	STN FSTN
View Area(W*H)	63.8x17.8	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
DotsxDots(W*H)	122x32	View Angle	6 O'clock , 12 O'clock
Dot Pitch(W*H)	0.44x0.49	Display Type	Positive Type,Negative Type
Dot Size(W*H)	0.40x0.45	Rear Polarizer	Transmissive,Reflective ,Transflective
---	---	Operating Temperature	0℃ ~50℃
---	---	Backlight	LED: Yellow

ELECTRICAL CHARACTERISTICS

item	Symbol	Test Condition	Min.	Type.	Max.	Unit
Operating Voltage	Vdd	Ta=25℃	---	5.0V	---	V
Operating Voltage for LCD	Vlcd	Ta=25℃	---	4.5V	---	V
Supply Current	Idd	Ta=25℃,Vdd=5.0V	---	2.0	3.0	mA
Supply Current for Backlight	If	Ta=25℃,Vf=4.2V	---	150	---	mA

INTERFACE PIN CONNECTIONS

Pin No.	Symbol	Level	Description
1	VSS	--	Ground for Logic
2	VDD	--	Power supply for Logic
3	V0	--	Power supply for LCD drive
4	RS(CS)	H/L	Register selection for parallel mode,chip select for serial mode
5	R/W(SID)	H/L	Read/write selection for parallel mode,Data input for serial mode
6	E(SCLK)	H/L→L	enable signal for parallel mode,serial clock for serial mode
7-14	DB0-DB7	H/L	Data Bus Lines for parallel mode
15	PSB	--	Interface selection:L:serial mode H:8/4bits parallel bus mode
16	VOUT	--	Power supply for LCD drive
17	LEDA	--	Power supply for backlight(+5.0V)
18	LEDK	--	Power supply for backlight(0V)

REMARK

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