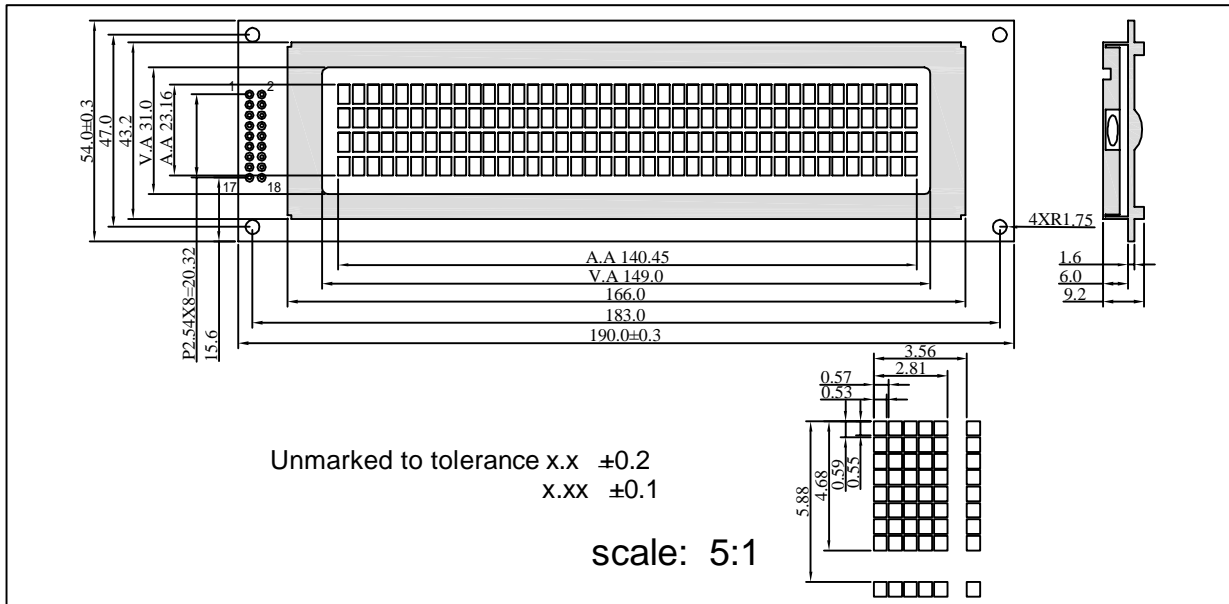


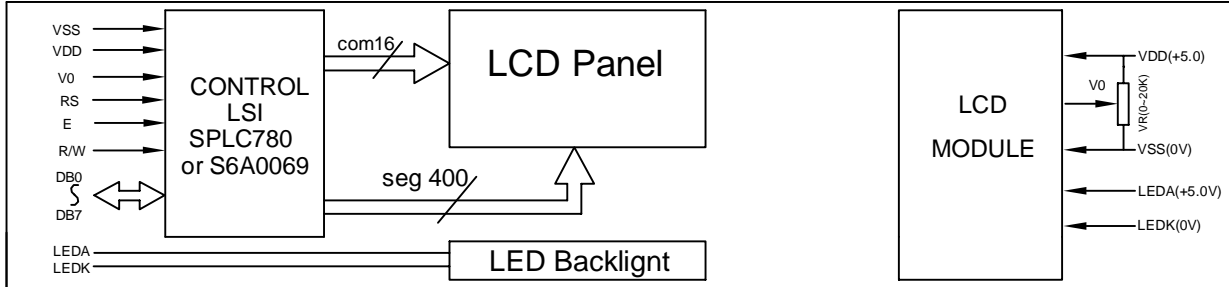
# ZL4004A1 Series

40x4 CHARACTERS  
1/16 DUTY, 1/5 BIAS  
CHARACTER-COB

## OUTLINE DIMENSIONS



## BLOCK DIAGRAM & POWER SUPPLY



## MECHANICAL SPECIFICATIONS & FEATURE

item	Normal Dimensions(mm)	Feature	
Module Size(W*H*T)	190.0X54.0X9.2	LCD Type	STN FSTN
View Area(W*H)	149X31	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
Character Pitch(W*H)	3.53X6.09	View Angle	6 O'clock , 12 O'clock
Character Size(W*H)	2.78X4.89	Display Type	Positive Type,Negative Type
Character Font	5X8	Rear Polarizer	Transmissive,Reflective ,Transflective
Dot Pitch(W*H)	0.57X0.62	Operating Temperature	0 °C ~50 °C , -20 °C~70 °C
Dot Size(W*H)	0.50X0.55	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	---	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
1~8	DB7~DB0	H/L	Data Bus Lines
9	E1	H/L → L	Enable signal for LCM
10	R/W	H/L	Read/Write selection (H:read,L:Write)
11	RS	H/L	Register selection (H:Data register,L:Instruction register)
12	V0	---	Power supply for LCD drive
13	VSS	---	Ground for Logic
14	VDD	---	Power supply for Logic
15	E2	H/L → L	Enable signal for LCM
16	NC	---	No connection
17	LEDA	---	Power supply for backlight(+)
18	LEDK	---	Power supply for backlight(-)

## REMARK

- Negative type LCD colour : Bule.
- CGROM font option:English,Japanese,Russian, Etc.
- File Version:01