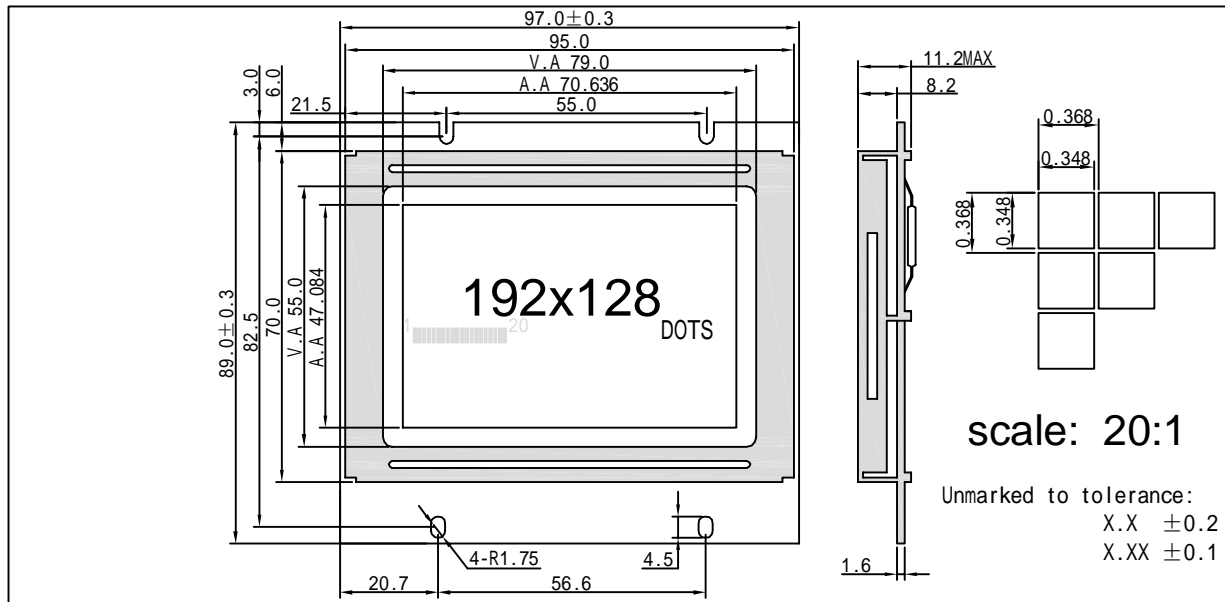


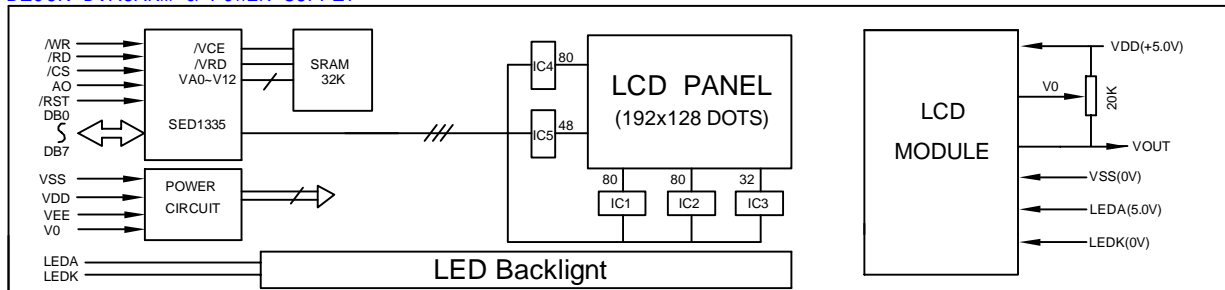
# ZL192128A1 Series

192x128 DOTS  
1/128 DUTY, 1/12 BIAS  
GRAPHIC-COB

## OUTLINE DIMENSIONS



## BLOCK DIAGRAM & POWER SUPPLY



## MECHANICAL SPECIFICATIONS & FEATURE

item	Normal Dimensions(mm)	Feature	
Module Size(W*H*T)	97.0x89.0x11.2MAX	LCD Type	STN FSTN
View Area(W*H)	79.0x55.0	LCD Colour	STN:Yellow-Green ,Gray Other:Gray
Dots x Dots (W*H)	192x128	View Angle	6 O'clock , 12 O'clock
Dot Pitch (W*H)	0.368x0.348	Display Type	Positive Type,Negative Type
Dot Size (W*H)	0.348x0.348	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	L	Ground for logic(0V)
2	VDD	H	Power supply for logic (+5.0V)
3	V0	---	Power supply for LCD drive
4	/WR	L	Write signal
5	/RD	L	Read signal
6	/CS	L	Chip Selection
7	A0	H/L	Registr selection
8	/RST	L	Reset signal
9-16	DB0-DB7	H/L	Data bus lines
17	NC	---	No connection
18	VOUT	---	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 : Bule. 2.File Version:01