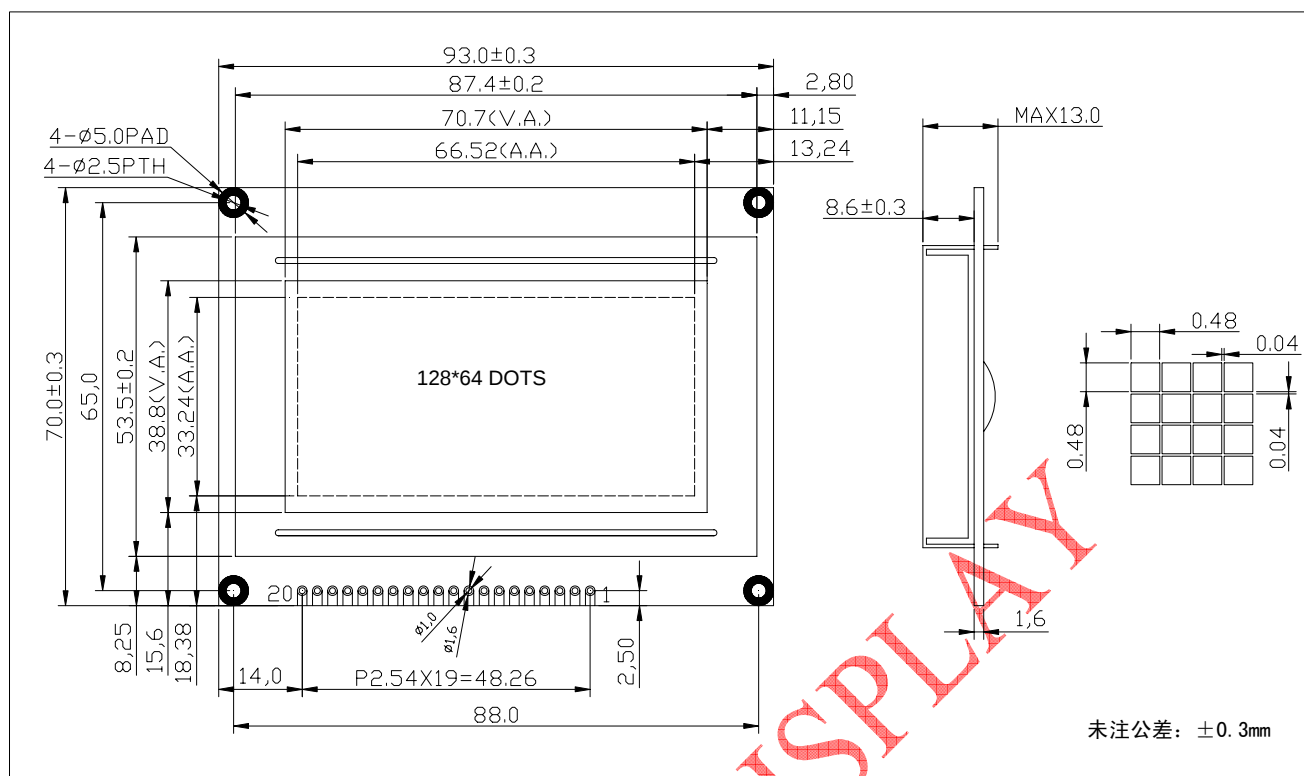




PIN CONNECTIONS

Pin	Symbol	Level	Function
1	V _{SS}	0V	GND
2	V _{DD}	+5V	Power supply for logic
3	V _O	-	Operating voltage for LCD
4	RS	H/L	“H” Data “L” Instruction code
5	R/W	H/L	“H” Read, “L” Write
6	E	H/L	Enable signal
7 14	DB0 DB7	H/L	Data bus line
15	CS1	H	Chip selection for IC1
16	CS2	H	Chip selection for IC2
17	/REST	L	Reset signal, active “L”
18	V _{OUT}	-	Negative Voltage output
19	LEDA	+5V	Power supply for LED Backlight
20	LEDK	0V	

NOTES:

1. Built-in controller (KS0107/0108 or Equivalent)
2. +5V/+3.3V power supply optional
3. Yellow green/blue mode optional
4. Temperature compensation optional

MECHANICAL DATA

Item	Nominal Dimensions	Unit
Module Size (W x H x T)	93.0X70.0X13.0	mm
Viewing Area (W x H)	70.7 X38.8	mm
Dot Pitch (W x H)	0.52X0.52	mm
Dot Size (W x H)	0.48X0.48	mm

ABSOLUTE MAXIMUM RATINGS

Item	Symbol	Min.	Max.	Unit
Supply Voltage(Logic)	$V_{DD}-V_{SS}$	-0.3	7.0	V
Supply Voltage(LCD)	$V_{DD}-V_O$	-0.3	17.5	V
Input Voltage	V_I	-0.3	$V_{DD}+0.3$	V
Operating Temp	T_{OPR}	-28	70	°C
Storage Temp	T_{STG}	-35	80	°C

ELECTRICAL CHARACTERISTICS($V_{DD}=5V$, $T_a=25^{\circ}C$)

Item	Symbol	Min.	Typ.	Max.	Unit
Input High Voltage	V _{IH}	0.8V _{DD}	-	V _{DD}	V
Input Low Voltage	V _{IL}	0	-	0.8	V
Output High Voltage	V _{OH}	2.4	-	V _{DD}	V
Output Low Voltage	V _{OL}	0	-	0.4	V
Supply Current	I _{DD}	-	6	8	mA
LCD Driving Voltage	V _{DD} - V _O	-	10.5	-	V

LED BACKLIGHT SPECIFICATION (Ta=25℃)

Item	Forward Voltage	Forward Current
YELLOW-GREEN	4.1V	360mA
WHITE	3.1V	60mA