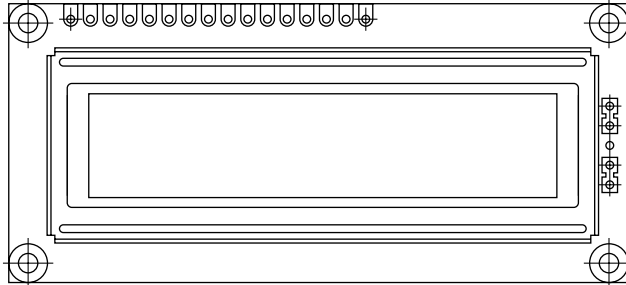


# 144 x 32 Graphic LCD


**FEATURES**

- Type: Graphic
- Display format: 144 x 32 dots
- Built-in controller: ST7920
- Duty cycle: 1/32
- + 5 V power supply
- LED can be driven by pin 15, pin 16 or A, K
- Chinese version
- Same size with LCD-016N002B
- Compliant to RoHS directive 2002/95/EC


**RoHS**  
COMPLIANT

MECHANICAL DATA		
ITEM	STANDARD VALUE	UNIT
Module Dimension	80.0 x 36.0	mm
Viewing Area	66.0 x 16.0	
Dot Size	0.38 x 0.38	
Dot Pitch	0.42 x 0.42	
Mounting Hole	75.0 x 31.0	
Character Size	N/a	

ABSOLUTE MAXIMUM RATINGS					
ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	$V_{DD}$ to $V_{SS}$	0	-	7.0	V
Input Voltage	$V_I$	0	-	$V_{DD}$	

**Note**

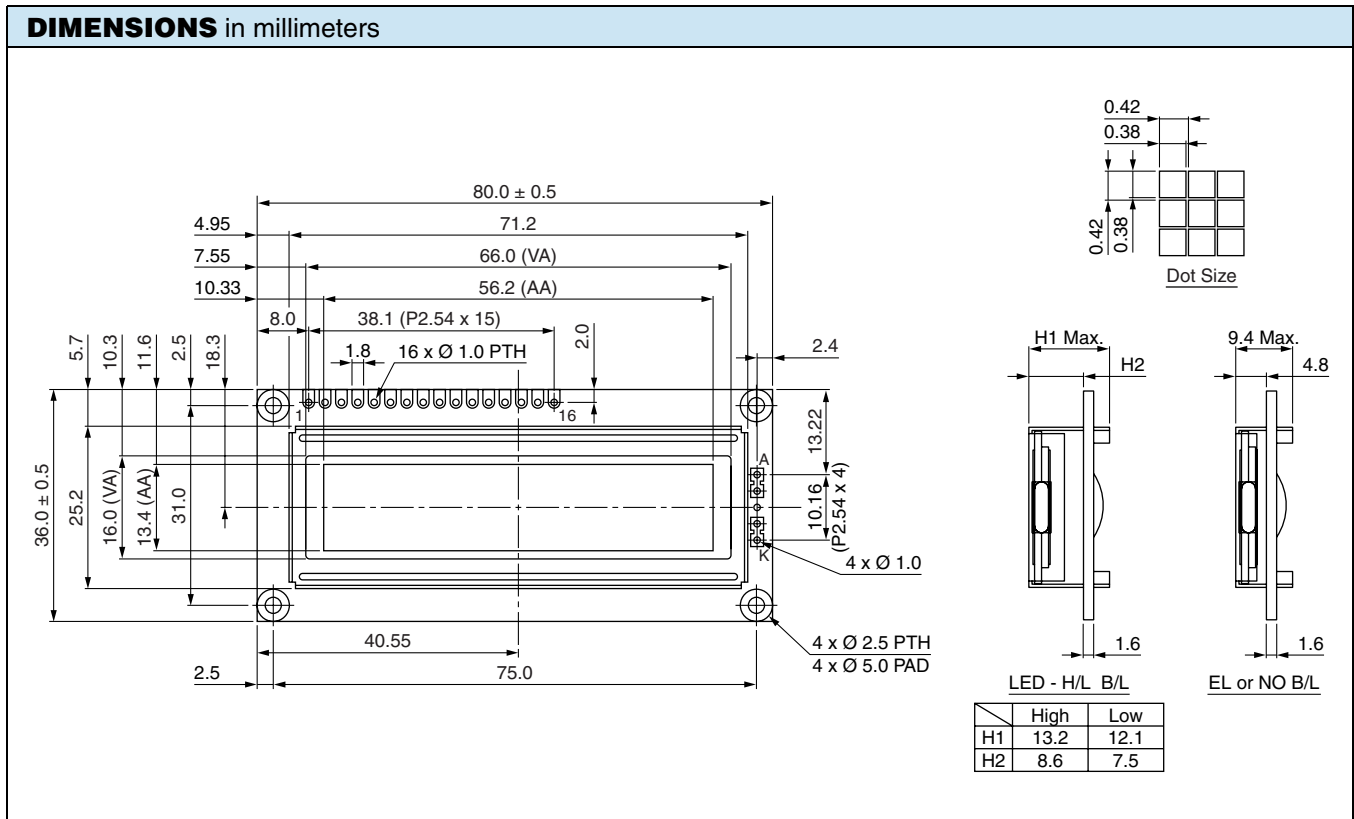
- $V_{SS} = 0$  V,  $V_{DD} = 5.0$  V

ELECTRICAL CHARACTERISTICS						
ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	$V_{DD}$	$V_{DD} = +5$ V	4.5	5.0	5.5	V
Supply Current	$I_{DD}$	$V_{DD} = +5$ V	-	1.2	1.5	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	$V_{DD}$ to $V_0$	-20 °C	-	-	6.0	V
		0 °C	-	-	5.0	
		25 °C	-	4.7	-	
		50 °C	4.4	-	-	
		70 °C	4.0	-	-	
LED Forward Voltage	$V_F$	25 °C	-	4.0	4.3	V
LED Forward Current - Array	$I_F$	25 °C	-	130	260	mA
LED Forward Current - Edge			-	20	40	

OPTIONS									
PROCESS COLOR						BACKLIGHT			
TN	STN Gray	STN Yellow	STN Blue	FSTN B&W	STN Color	None	LED	EL	CCFL
	x	x	x	x		x	x	x	

For detailed information, please see the "Product Numbering System" document.

INTERFACE PIN FUNCTION		
PIN NO.	SYMBOL	FUNCTION
1	V <sub>SS</sub>	Ground
2	V <sub>DD</sub>	Power supply (+ 5 V)
3	V <sub>0</sub>	NC
4	RS	H/L register select signal
5	R/W	H/L read/write signal
6	E	H → L enable signal
7	DB0	H/L data bus line
8	DB1	H/L data bus line
9	DB2	H/L data bus line
10	DB3	H/L data bus line
11	DB4	H/L data bus line
12	DB5	H/L data bus line
13	DB6	H/L data bus line
14	DB7	H/L data bus line
15	A	Power supply for B/L
16	K	Power supply for B/L





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