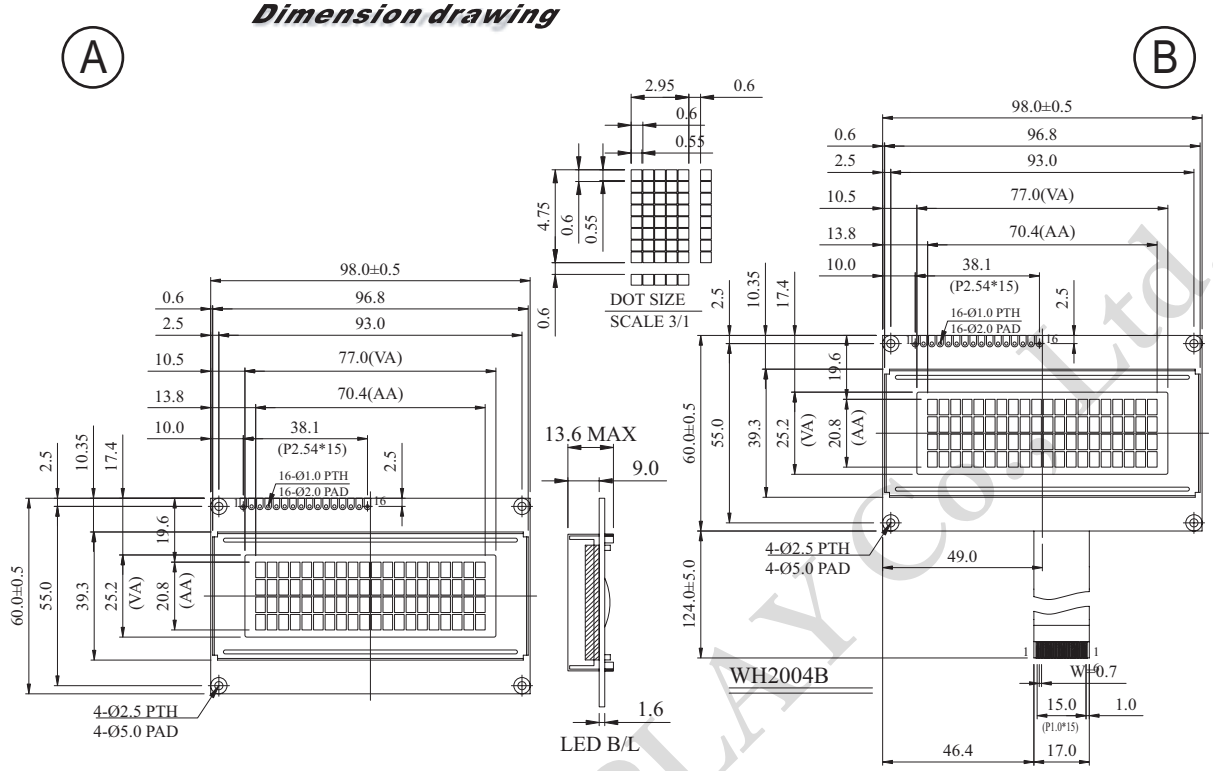
WH2004A/B Character20x4

Dimension drawing



Character type

Feature

1. 5x8 dots includes cursor
2. Built-in controller (ST 7066 or Equivalent)
3. +5V power supply (N/V option for +3V power supply)
4. 1/16 duty cycle
5. LED can be driven by pin1,pin2,pin15,pin16 or A and K
6. WH2004B: FFC connector
7. WH2004F: 7 colors LED option

Pin NO.	Symbol	Function
1	Vss	Ground
2	Vdd	Supply voltage for logic
3	Vo	Contrast Adjustment
4	RS	H: Data L: Instruction
5	R/$\overline{W}$	H: read data L: write data
6	E	Enable signal
7	DB0	Data bus line
8	DB1	Data bus line
9	DB2	Data bus line
10	DB3	Data bus line
11	DB4	Data bus line
12	DB5	Data bus line
13	DB6	Data bus line
14	DB7	Data bus line
15	A	+4.2V for LED
16	K	Power supply for B/L(-)

Mechanical Data

Item	Standard Value	Unit
Module Dimension	98.0x60.0x13.6	mm
Viewing Area	77.0x25.2	mm
Mounting hole	93.0x55.0	mm
Character Size	2.95x4.75	mm

Absolute Maximum Rating

Item	Symbol	Standard Value			Unit
		min.	typ.	max.	
Power Supply	VDD-VSS	-0.3	---	7.0	V
Input Voltage	VI	-0.3	---	VDD	V

Note : VSS=0 Volt, VDD=5.0 Volt.

Electronical Characteristics

Item	Symbol	Condition		Standard Value			Unit
				min.	typ.	max.	
Input Voltage	VDD	VDD=+5V		2.7	---	5.3	V
Supply Current	IDD	VDD=5V		---	1.0	1.2	mA
Recommended LC Driving Voltage for Normal Temp. Version module	VDD-VO	-20ºC		5.0	5.1	5.7	V
		25ºC		4.1	4.5	4.7	
		70ºC		3.7	3.9	4.3	
LED Forward Voltage	VF	25ºC		---	4.2	4.6	V
LED Forward Current	IF	25ºC	Array	---	280	560	mA
			Edge	---	---	---	mA
EL Power Supply Current	IEF	Vel=110VAC;400Hz		---	---	5.0	mA

Display Character Address Code :

Display position	1	2	3	4	5	6	7	8	9	10	11	12	13	---	---	20
DD RAM Address	00	01	02													13
DD RAM Address	40	41	42													53
DD RAM Address	14	15	16													27
DD RAM Address	54	55	56													67