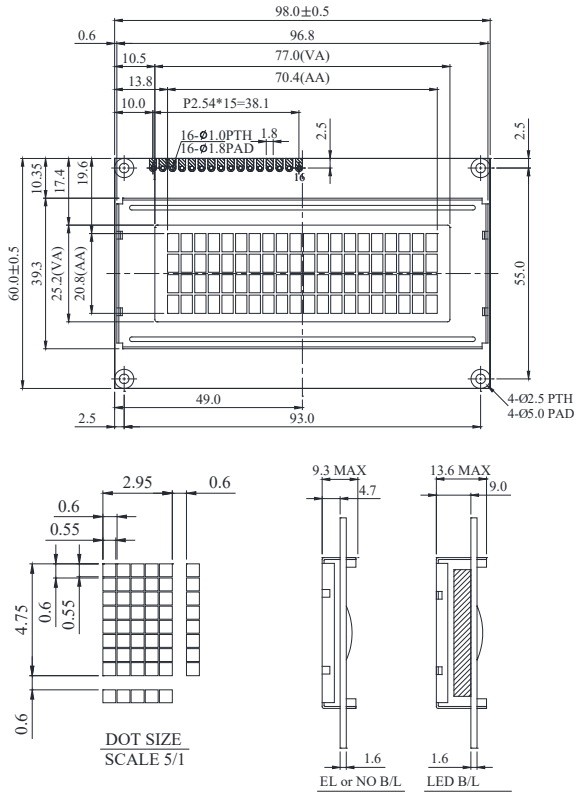
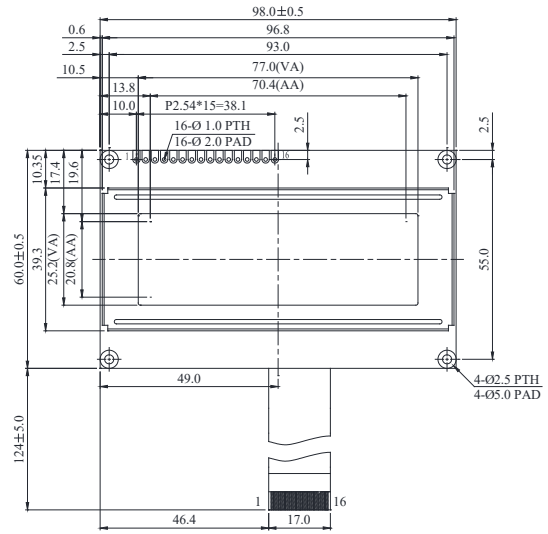


# NTH2004A/B Character 20x4

## NTH2004A



## NTH2004B



### Feature

- 1.5x8 dots includes cursor
- Built-in controller (ST7066 or Equivalent)
- 3.5V power supply ( Also available for 3V)
- N.V, optional for 3V power supply
- 1/16 duty cycle
- LED can be driven by PIN1, PIN2, PIN15, PIN16 or A and K
- Interface : 6800, option SPI/I2C (RW1063 IC)
- NTH2004B : FFC connector
- NTH2004F : 7 colors LED option

### Mechanical Data

Item	Standard Value	Unit
Module Dimension	98.0 x 60.0	mm
Viewing Area	77.0 x 25.2	mm
Mounting Hole	93.0 x 55.0	mm
Character Size	2.95 x 4.75	mm

### NTH2004A

Pin No.	Symbol	Description
1	V <sub>SS</sub>	Ground
2	V <sub>DD</sub>	Power supply for logic
3	V <sub>O</sub>	Contrast Adjustment
4	RS	Data/ Instruction select signal
5	R/W	Read/Write select signal
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	Power supply for B/L +
16	K	Power supply for B/L -

### NTH2004B

Pin No.	Symbol	Description
1	V <sub>SS</sub>	Ground
2	V <sub>DD</sub>	Power supply for logic
3	V <sub>O</sub>	Contrast Adjustment
4	RS	Data/ Instruction select signal
5	R/W	Read/Write select signal
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	Power supply for B/L +
16	K	Power supply for B/L -

### Electrical Characteristics

Item	Symbol	Standard Value	Unit
		typ.	
Input Voltage	VDD	3/5	V
Recommended LCD Driving Voltage for Normal Temp. Version module @25°C	VDD-VO	4.50	V

### 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