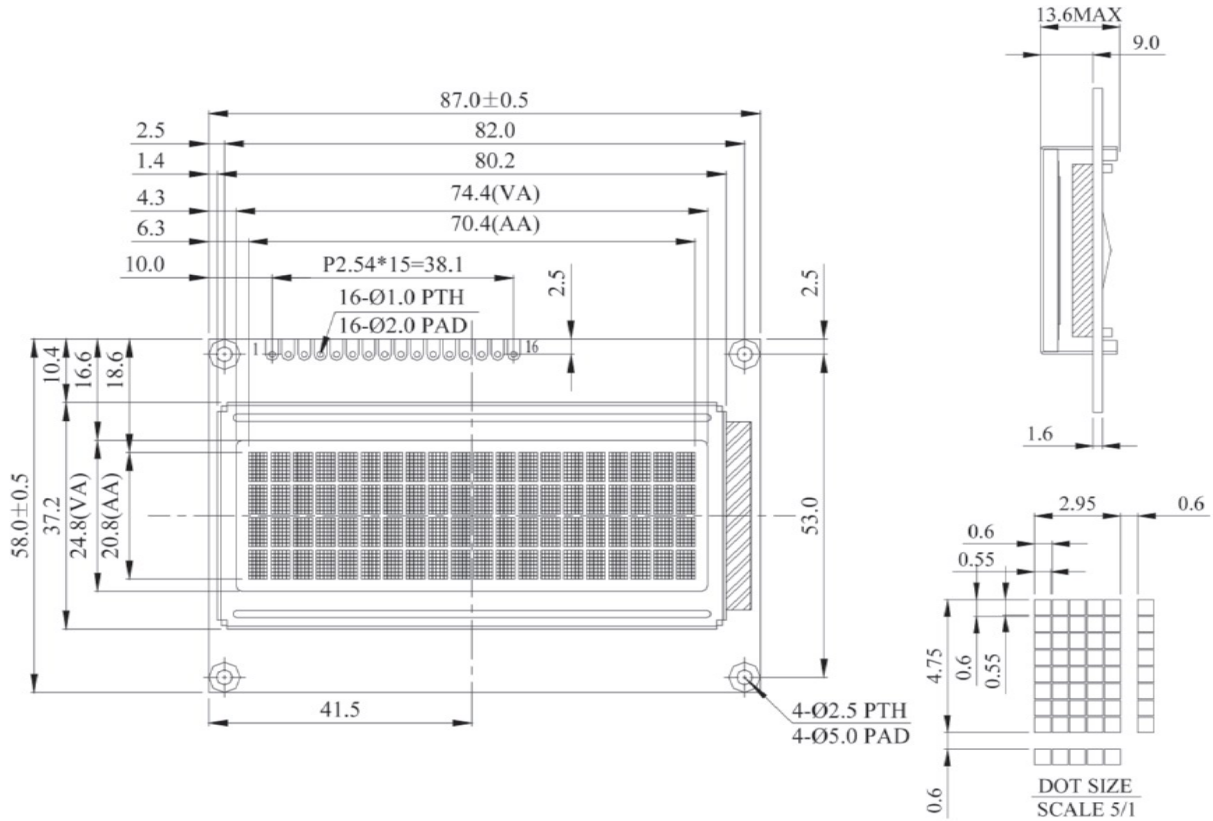


# MSH2004H

Character LCM 20x4

# GMS.

■ ■ ■ DISPLAY SYSTEMS



## Feature

1. 5x8 dots includes cursor
2. Built-in controller (RW1063 or Equivalent)
3. +5V power supply ( Also available for +3V)
4. Negative voltage optional for +3V power supply
5. 1/16 duty cycle
6. LED can be driven by PIN1, PIN2, PIN15, PIN16 or A and K
7. Interface : WH2004H - 6800, WH2004H1 - SPI, WH2004H3 - I2C

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 -

## Mechanical Data

Item	Standard Value	Unit
Module Dimension	87.0 x 58.0	mm
Viewing Area	74.4 x 24.8	mm
Mounting Hole	82.0 x 53.0	mm
Character Size	2.95 x 4.75	mm

## Electrical Characteristics

Item	Symbol	Standard Value	Unit
		typ.	
Input Voltage	V <sub>DD</sub>	3/5	V
Recommended LCD Driving Voltage for Normal Temp. Version module @25°C	V <sub>DD-V<sub>O</sub></sub>	4.20	V

## Display Character Address Code

Character located	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
DDRAM address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	10	11	12	13
DDRAM address	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F	50	51	52	53
DDRAM address	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F	20	21	22	23	24	25	26	27
DDRAM address	54	55	56	57	58	59	5A	5B	5C	5D	5E	5F	60	61	62	63	64	65	66	67

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