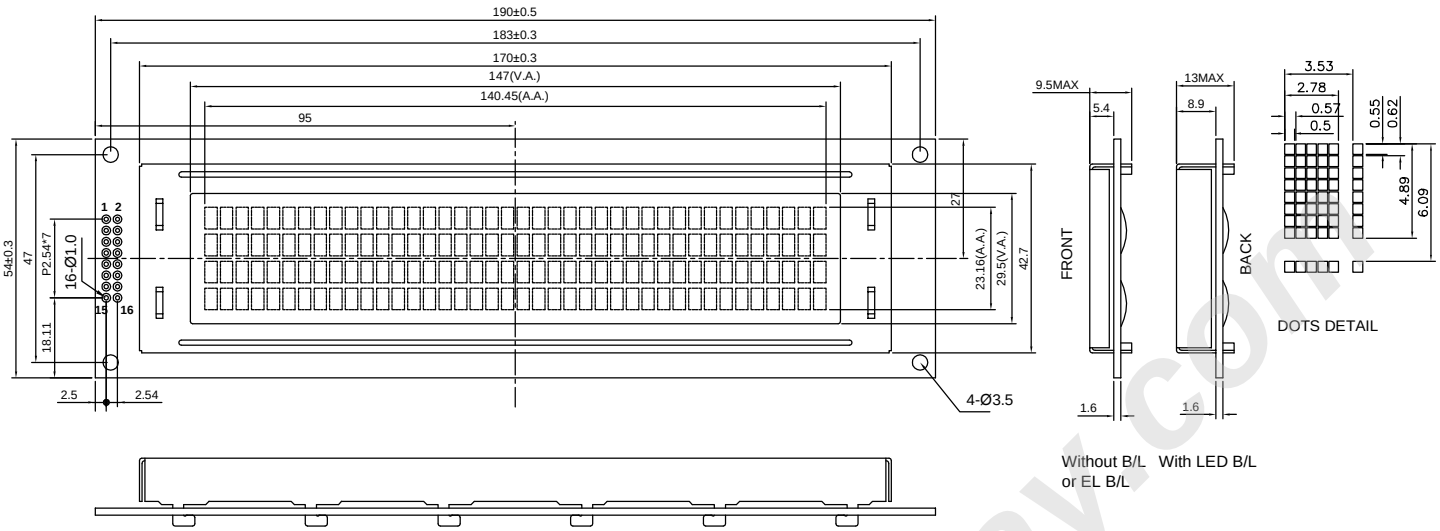
E-SHINE DISPLAY CO., LTD. EC4004A

Dimension Drawing



TOLERANCES UNLESS OTHERWISE STATED
X.X ±0.20 X.XX ±0.10 UNIT: mm

Feature:

1. 4-line x40 characters display; 5x8 dots with cursor
2. Built-in controller(ST7066U or equivalent)
3. +5V power supply(also available for +3.3V)
4. 1/16 Duty cycle
5. STN or FSTN Mode
6. Match all kind colors of LED back light
7. ROHS compliant

Interface Pin Connections

PIN NO.	Symbol	Function
1	DB7	H/L Data bus line
2	DB6	H/L Data bus line
3	DB5	H/L Data bus line
4	DB4	H/L Data bus line
5	DB3	H/L Data bus line
6	DB2	H/L Data bus line
7	DB1	H/L Data bus line
8	DB0	H/L Data bus line
9	E1	H/L Enable signal
10	R/W	H/L Read/Write signal
11	RS	H/L Register select signal
12	V0	Contrast adjustment
13	VSS	GND
14	VDD	+5V or +3.3V
15	E2	H/L Enable signal
16	A	Power supply for B/L(LED+)

Mechanical Data

Item	Standard	Unit
Module dimension	190 x 54.0	mm
Viewing area	147 x 29.5	mm
Mounting hole	183 x 47.0	mm
Character size	2.78 x 4.89	mm

Absolute Maximum Rating

Item	Symbol	Standard			Unit
		Min	Typ	Max	
Power supply	VDD-VSS	-0.3	---	7.0	V
Input voltage	VI	-0.3	---	VDD	

Electronical Characteristics

Item	Symbol	Condition		Standard			Unit
				Min	Typ	Max	
Input voltage	VDD	+5.0V		4.5	5.0	5.5	V
		+3.3V		2.7	3.3	4.5	V
Supply current	I_{DD}	VDD=5V		----	0.2	0.5	mA
Recommended LCD driving voltage for normal temp version module	VDD-V0 (VDD=5V)	-20°C		4.9	5.2	5.5	V
		0°C		4.5	4.8	5.1	
		25°C		4.1	4.5	4.8	
		50°C		3.8	5.0	4.4	
		70°C		3.5	4.2	5.5	
LED forward voltage	VF	25°C		----	4.2	4.6	V
LED forward current	IF	25°C	Array	----	300	----	mA
			Edge	----	60	80	
EL power supply	I_{EL}	V_{EL}=110V AC 400Hz		----	----	5.0	mA

Display Character Address Code:

Display position	1	2	3	4	5	6	7	8	9	10	11	12	--	--	--	40
DDRAM address	00	01	02	--	--	--	--	--	--	--	--	--	--	--	--	27H
DDRAM address	40	41	42	--	--	--	--	--	--	--	--	--	--	--	--	67H

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