

CUSTOMER :
MODEL : MOC-16116D-7-F2P0H
DESCRIPTION : LCD MODULE

◆ CUSTOMER APPROVAL

	CHECKED	CHECKED	APPROVAL
APPROVAL			
REMARK			

◆ SUPPLIER APPROVAL

PREPARED	CHECKED		APPROVAL

MYTECH CORPORATION

180 Old Tappan Rd., Bldg. 6, Old Tappan, NJ 07675

Tel: (201) 784-8867 Fax: (201) 784-8932

Email: mysales@mytechcorp.com

- NOTE:** 1. This specification may, wholly or partially, be subjected to change without notice.
2. Information contained herein is proprietary information of MYTECH CORPORATION. The dissemination use or duplication for any purpose other than for which the information is provided is prohibited by MYTECH CORPORATION except by express permission.

1. MECHANICAL DATA

- (1) NUMBER OF CHARACTERS ----- 16 CH * 1 LINE
- (2) MODULE SIZE----- 122.0 W * 33.0 H * 15.0 T (Max) mm
- (3) EFFECTIVE AREA ----- 99.0 W * 13.0 H mm
- (4) CHARACTER PATTERN----- 5 * 7 DOTS + CURSOR
- (5) CHARACTER SIZE ----- 4.84 W * 8.06 H mm
- (6) CHARACTER PITCH ----- 6.0 mm
- (7) DOT SIZE ----- 0.92 W * 1.10 H mm
- (8) DOT PITCH ----- 0.98 W * 1.16 H mm
- (9) VIEWING DIRECTION----- 6 O'CLOCK
- (10) LCD TYPE ----- STN BLUE / TRANSMISSIVE
- (11) LED BACKLIGHT COLOR ----- WHITE

2. ABSOLUTE MAXIMUM RATINGS

2.1 Electrical Absolute Maximum Ratings

<i>I T E M</i>	<i>SYMBOL</i>	<i>MIN.</i>	<i>MAX.</i>	<i>UNIT</i>	<i>COMMENT</i>
POWER SUPPLY FOR LOGIC	V _{DD} -V _{SS}	0	6.0	V	-----
INPUT VOLTAGE	V _I	V _{SS}	V _{DD}	V	-----
STATIC ELECTRICITY	-----	-----	100	V	NOTE (1)
POWER SUPPLY FOR LED	-----	-----	6.0	V	-----

NOTE (1): ELECTRO-STATIC DISCHARGE RESISTANCE IS TESTED BY CHARGING A 200PF CAPACITOR AND DISCHARGING IT BY CONTACT WITH A INTERFACE CONNECTOR PIN.

2.2 Environmental Absolute Maximum Ratings

<i>I T E M</i>	<i>OPERATING</i>		<i>STORAGE</i>		<i>COMMENT</i>
	<i>MIN.</i>	<i>MAX.</i>	<i>MIN.</i>	<i>MAX.</i>	
AMBIENT TEMPERATURE	0°C	50°C	-20°C	70°C	-----
HUMIDITY	NOTE (2)		NOTE (2)		NO CONDENSATION
VIBRATION NOTE (3)	-----	0.5G	-----	2G	10~300Hz XYZ DIRECTIONS 1 Hr EACH
SHOCK NOTE (3)	-----	3G	-----	50G	10 msec XYZ DIRECTIONS 1 TIME EACH
CORROSIVE GAS	NOT ACCEPTABLE		NOT ACCEPTABLE		-----

NOTE (2) : Ta ≤ 50°C: 90% RH MAX.

Ta > 50°C: ABSOLUTE HUMIDITY MUST BE LOWER THAN THE HUMIDITY OF 90% RH AT 50°C. (80% RH AT 60°C)

NOTE (3): 1G = 9.8 m/s²

3. ELECTRICAL CHARACTERISTICS

Ta = 25°C VDD = 5.0 ± 0.25 V

<i>I T E M</i>	<i>SYMBOL</i>	<i>CONDITION</i>	<i>MIN.</i>	<i>TYP.</i>	<i>MAX.</i>	<i>UNIT</i>
INPUT VOLTAGE	V _{IH}	-----	2.0	-----	V _{DD}	V
	V _{IL}	-----	V _{SS}	-----	0.8	V
OUTPUT VOLTAGE	V _{OH}	-I _{OH} = 0.2 mA	2.4	-----	-----	V
	V _{OL}	I _{OL} = 1.6 mA	-----	-----	0.4	V
POWER SUPPLY CURRENT	I _{DD}	V _{DD} = 5.0V	-----	1.0	1.5	mA
RECOMMENDED LCD DRIVING VOLTAGE,NOTE(1)	V _{DD} -V _O DUTY= 1/16 Φ=10°	Ta = 0°C	-----	4.4	-----	V
		Ta = 25°C	-----	4.3	-----	V
		Ta = 50°C	-----	4.2	-----	V
POWER SUPPLY CURRENT FOR LED	I _{LED}	V _{LED} = 5.0V	-----	30	40	mA

NOTE (1): RECOMMENDED LCD DRIVING VOLTAGE MAY FLUCTUATE ABOUT ± 0.5V BY EACH MODULE.

4. OPTICAL CHARACTERISTICS

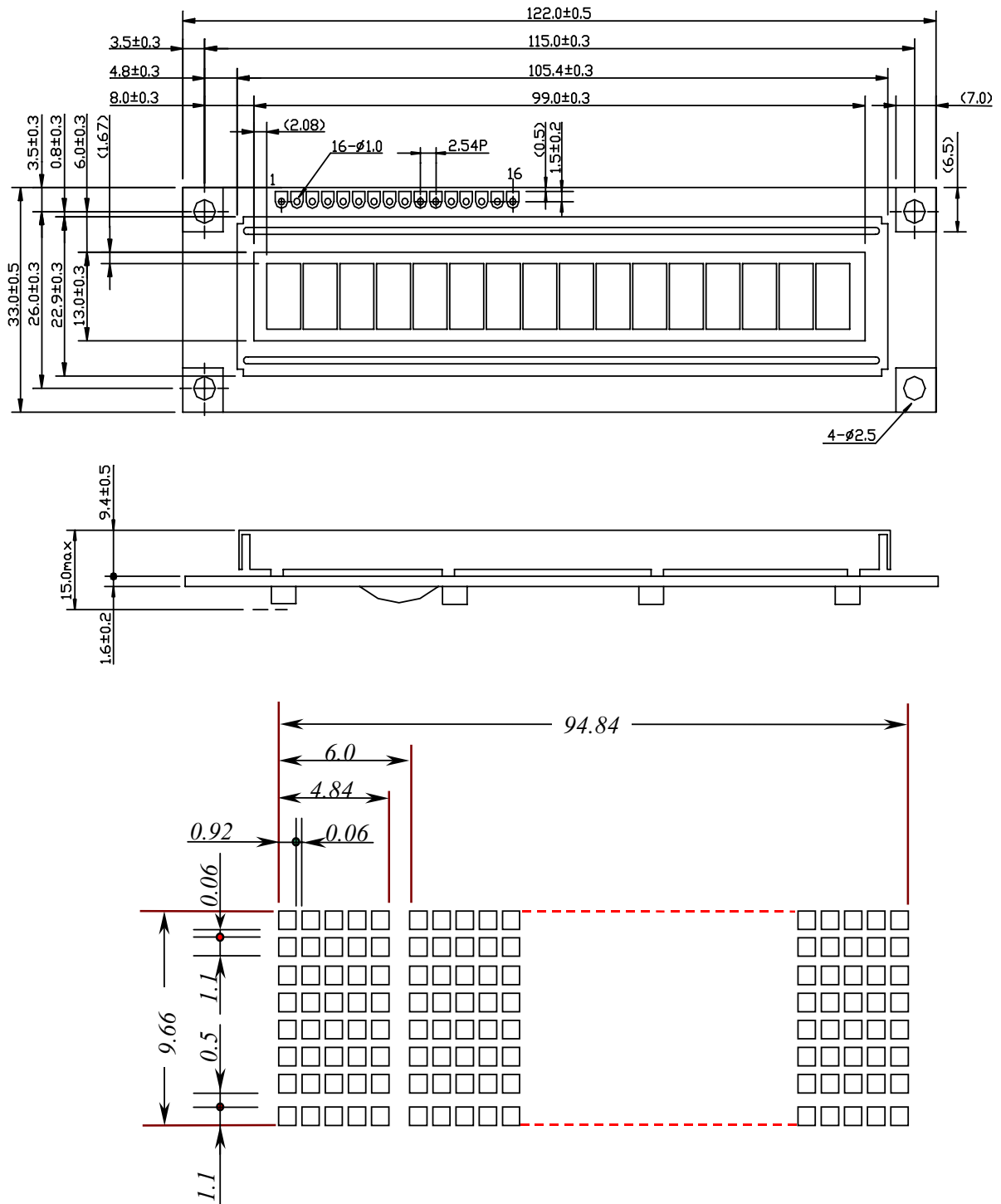
Ta = 25°C V_{DD}-V_O = 4.3 V

<i>I T E M</i>	<i>SYMBOL</i>	<i>CONDITION</i>	<i>MIN.</i>	<i>TYP.</i>	<i>MAX.</i>	<i>UNIT</i>	<i>NOTE</i>
VIEWING ANGLE	Φ ₂ -Φ ₁	K = 2.0 θ = 0°	30	40	-----	deg.	1
CONTRAST RATIO	K	Φ = 10° θ = 0°	4.0	5.0	-----	-----	1
RESPONSE TIME	tr (rise)	Φ = 10° θ = 0°	-----	200	350	ms	1
	tf (fall)	Φ = 10° θ = 0°	-----	300	400	ms	1
BRIGHTNESS FOR LED BACKLIGHT	B	Φ = 0° θ = 0°	6.0	-----	-----	cd/m ²	1,2

NOTE (1): SEE CUSTOMER ACCEPTANCE STANDARD SPECIFICATION FOR DEFINITION OF OPTICAL CHARACTERISTICS.

NOTE (2): UNDER NORMAL TEMPERATURE AND HUMIDITY IN A DARK ROOM.

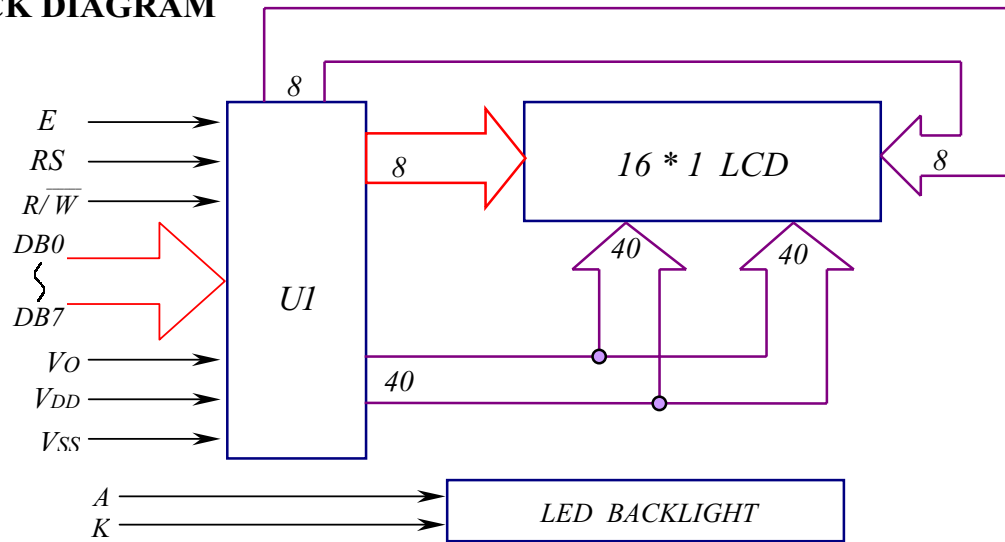
5. OUTLINE DIMENSION



Interface Pin Connection

PIN NO.	1	2	3	4	5	6	7	8
SYMBOL	VSS	VDD	VO	RS	R/W	E	DB0	DB1
PIN NO.	9	10	11	12	13	14	15	16
SYMBOL	DB2	DB3	DB4	DB5	DB6	DB7	A	K

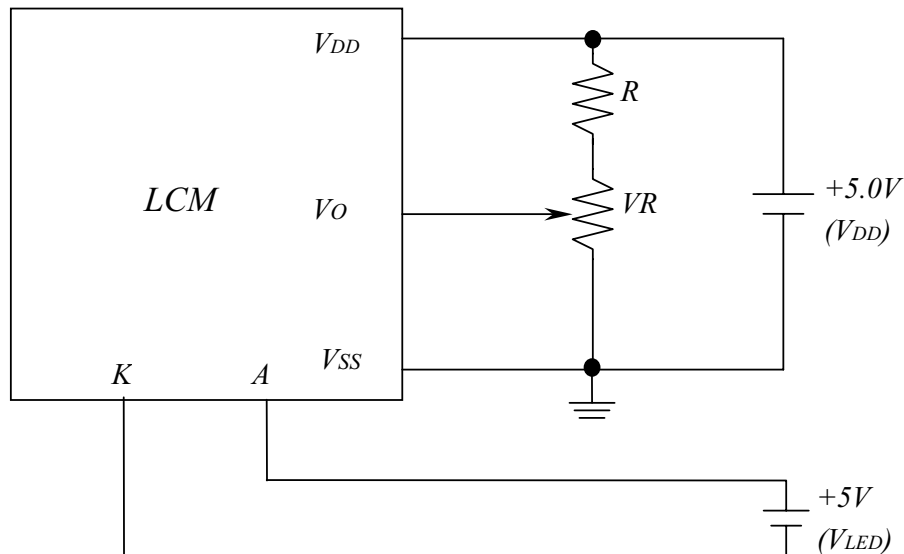
6. BLOCK DIAGRAM



Display Data Address Charts

Character	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
LINE 1	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F

7. POWER SUPPLY FOR LCM



RECOMMENDED RESISTOR R: $V_{DD} - V_O \geq 1.5V$

$V_{DD} - V_O$: LCD DRIVING VOLTAGE

VR: $10K\Omega \sim 20K\Omega$