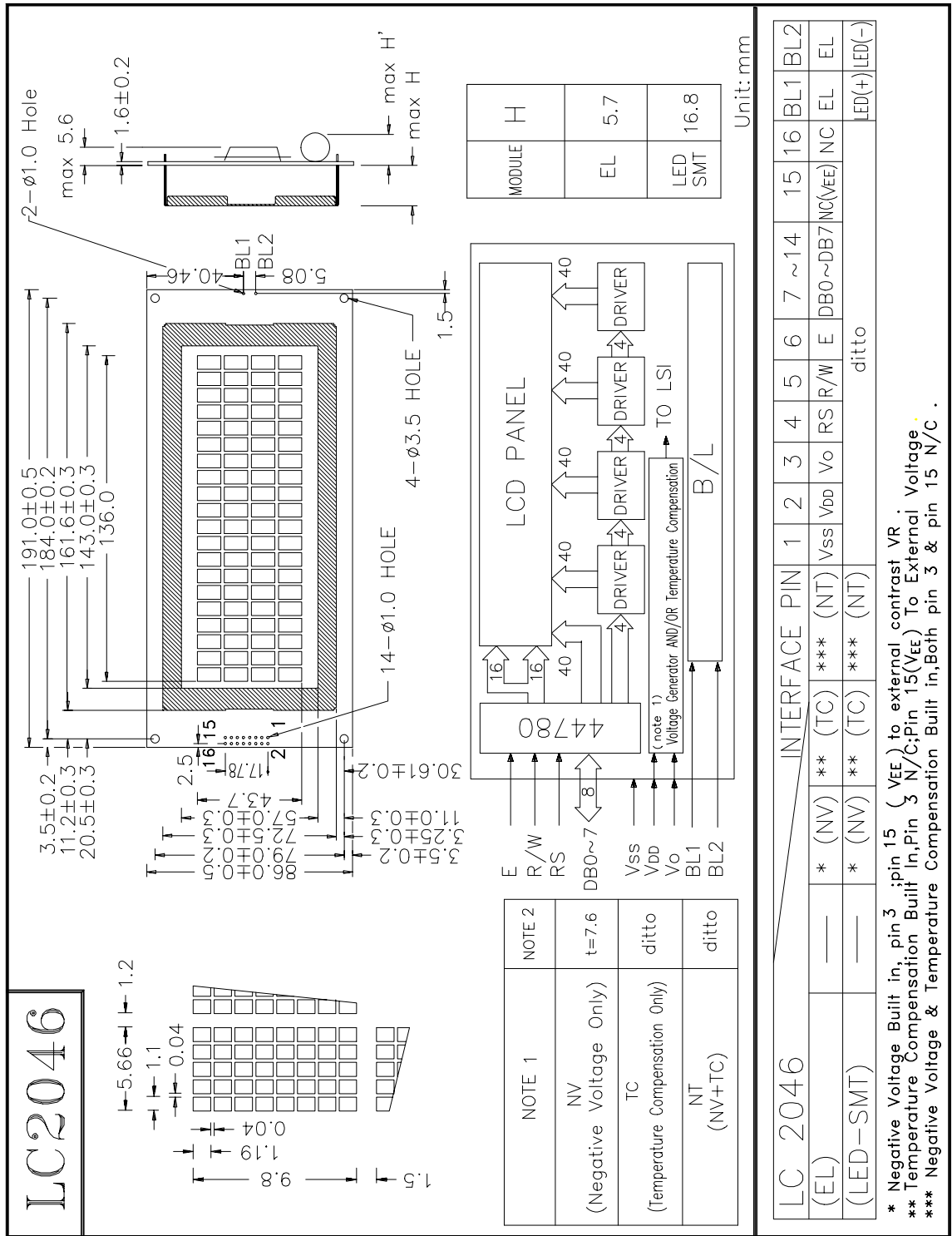


1. LCM Drawing



2. Electrical spec

LC2046

20 Characters X 4 Lines
1/16 DUTY 5x8 Font

ELECTRICAL CHARACTERISTICS

$T_a = 25^{\circ}\text{C}$ $V_{DD} = 5.0 \pm 0.25 \text{ v}$

Input "High" Voltage (V_{IH}) 2.2 V min

Input "Low " Voltage (V_{IL}) 0.6 V max

APPLICABLE FOR -LNA

	<u>TN</u>		<u>STN</u>	
	<u>TEMPERATURE</u>		<u>TEMPERATURE</u>	
	<u>NORMAL</u>	<u>WIDE</u>	<u>NORMAL</u>	<u>WIDE</u>
Supply Current, (I_{DD})Typ., mA	N/A	N/A	3	3
Recommend LCD drive Voltage:				
($V_{DD}-V_O$)at $T_a = -20^{\circ}\text{C}$,Volts	N/A	N/A	N/A	6.9
$T_a = 0^{\circ}\text{C}$	N/A	N/A	4.8	6.8
$T_a = 25^{\circ}\text{C}$	N/A	N/A	4.8	6.8
$T_a = 50^{\circ}\text{C}$	N/A	N/A	4.8	6.7
$T_a = 70^{\circ}\text{C}$	N/A	N/A	N/A	6.6

ABSOLUTE MAXIMUM RATINGS

	<u>NORMAL</u>		<u>WIDE</u>	
	<u>TEMPERATURE</u>		<u>TEMPERATURE</u>	
	<u>MIN</u>	<u>MAX</u>	<u>MIN</u>	<u>MAX</u>
Input Voltage (V_I) V	0	V_{DD}	0	V_{DD}
Supply for Logic ($V_{DD}-V_{SS}$) V	0	7	0	7
Supply for LCD ($V_{DD}-V_O$) V	0	10	0	10
Operating Temperature T_{OP} , $^{\circ}\text{C}$	0	+50	-20	+70
Storage Temperature T_{ST} , $^{\circ}\text{C}$	-20	+70	-30	+0

OPTION

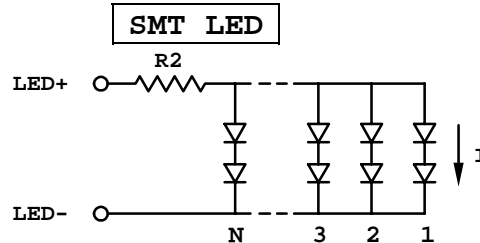
BACKLIGHT

- BEXX -- EL
- BLSXX -- LED SMT

INPUT VOLTAGE & CURRENT

100 V_{RMS} (400-800) Hz; 16.0mA
 + 5V DC; 900 mA $R_2 = 1 \text{ Ohm } 2 \text{ W}$

* R_2 : Suggest BL current limit resistor on customer board



$N = 90, I = 10 \text{ mA}$

----- Single +5V for wide temperature operation -----

SINGLE +5V OPERATION *only*

- VNV
- V_{EE} self-generate --

TEMPERATURE COMPENSATION

- VNVTC (VNT)
- $V_{DD}-V_O$ self-generate & compensated