

<b>G24064-2</b>	<b>240 DOTS×64 DOTS</b>	<b>1/64 DUTY</b>	<b>1/9 BIAS</b>
-----------------	-------------------------	------------------	-----------------

**FEATURE:**

LCD TYPE	STN/FSTN
LCM BACKLIGHT TYPE	EL/FL /LED BACKLIGHT
LCM CONTROLLER IC	BUILT IN LC7981 OR EQUIVALENT
POWER SUPPLY FOR LCM	DC +5.0V
LED BACKLIGHT INPUT	DC +5.0V
EL BACKLIGHT INPUT	
EL INVERTER	
FL BACKLIGHT INPUT	
FL INVERTER	
LCM DIMENSION	180.0×65.0×11.0(13.0) mm
LCM VIEWING AREA	132.0×39.0 mm
LCD DOT SIZE	0.49×0.49 mm
LCD DOT PITCH	0.53×0.53 mm

**3.ABSOLUTE MAXIMUM RATINGS:**

ITEM	SYM	MIN	TYP	MAX	UNIT
OPERATING TEMP.	Top	-20	-	+70	
STORAGE TEMP.	Tst	-30	-	+80	
INPUT VOLTAGE	Vi	Vss	-	VDD	V
SUPPLY VOL. FOR LOGIC	VDD-VSS	-	-	7.0	V
SUPPLY VOL. FOR LCD	VDD-VEE	-	-	10.0	V

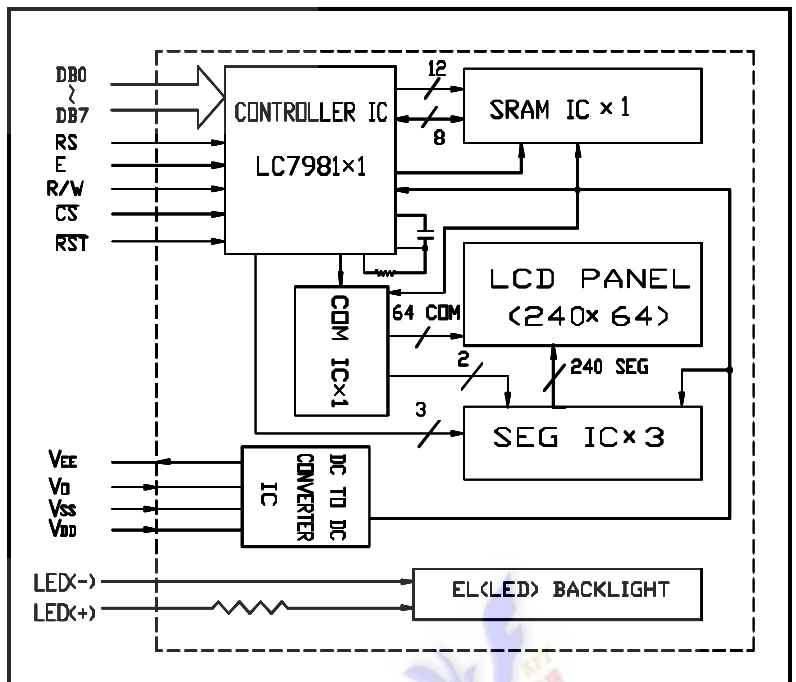
**5.INTERFACE PIN CONNECTIONS:**

NO	SYM	LEVEL	FUNCTION
1	Vss	-	0V
2	VDD	-	+5V
3	Vo	-	CONTRAST ADJ.
4	D/I	H/L	H:DATA, L:INSTRUCTION CODE
5	R/W	H/L	H:READ(LCD →MPU) L:WRITE(MPU → LCD)
6	E	H.H →L	ENABLE SIGNAL
7	DB0	H/L	DATA BIT0
8	DB1	H/L	DATA BIT1
9	DB2	H/L	DATA BIT2
10	DB3	H/L	DATA BIT3
11	DB4	H/L	DATA BIT4
12	DB5	H/L	DATA BIT5
13	DB6	H/L	DATA BIT6
14	DB7	H/L	DATA BIT7
15	CS	H/L	CHIP ENABLE SIGNAL
16	RST	L	RESET SIGNAL
17	VEE	-	NEGATIVE VOLTAGE OUTPUT (-5.0V)
18	N.C	-	NO CONNECTION
19	A(+)	+5.0V	BACKLIGHT(+)
20	K(-)	0V	BACKLIGHT(-)

**2.ELECTRICAL CHARACTERISTICS:**

ITEM	SYM	CONDITION	MIN	TYP	MAX	UNIT
SUPPLY VOLTAGE FOR LOGIC	VDD-VSS	Ta = 2 5	4.5	5.0	5.5	V
SUPPLY VOLTAGE FOR LCD DRIVER	VEE-VSS	Ta = 2 5	-	-	-5.0	V
OPERATING VOL. FOR LCD MODULE	VDD-VO	Ta = 2 5	-	9.0	-	V
INPUT HIGH VOL.	VIH	-	0.7VDD	-	VDD	V
INPUT LOW VOL.	VIL	-	0	-	0.3VDD	V
SUPPLY CURRENT FOR LOGIC	IDD	VDD=5.0V	-	-	15.0	mA
SUPPLY CURRENT FOR LCD	ILCD	VO=-4.0V	-	-	17.0	mA
LED CURRENT	IF	Ta = 2 5	-	350	-	mA
LED DISSIPATION	Pd	Ta = 2 5	-	1750	-	mW

**4. BLOCK DIAGRAM:**



**6.DIMENSIONAL DRAWING :**

