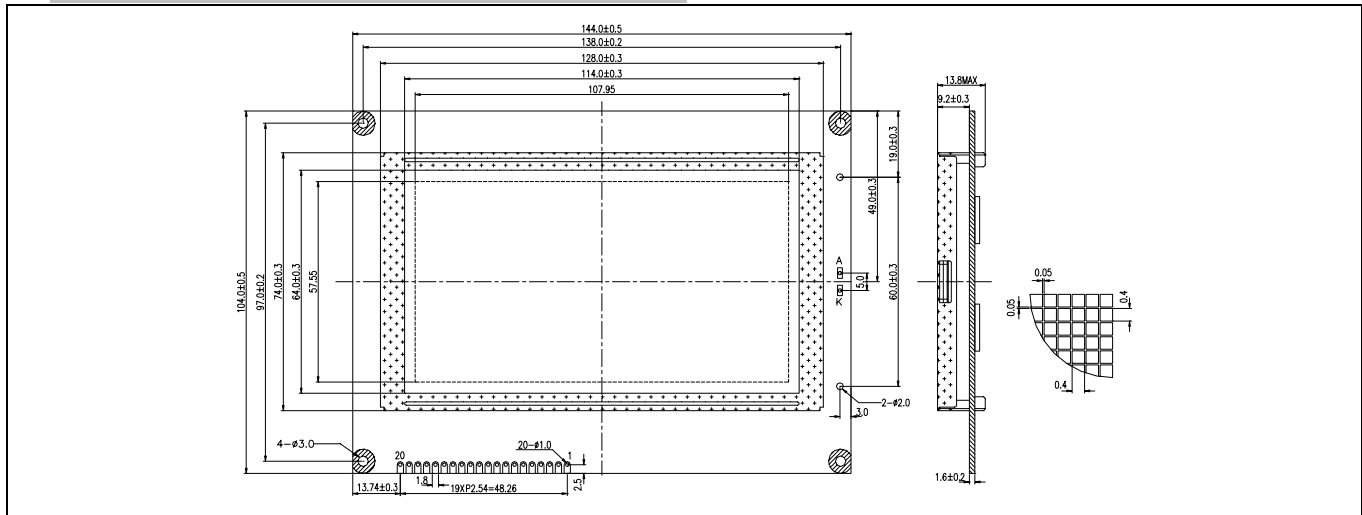


HE245X50

240 X 128 Dots

1. EXTERNAL DIMENSION AND DISPLAY PATTERN



2. MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size (W×H×T)	144.0×104.0×13.8	mm
Viewing Area (W×H)	114.0×64.0	mm
Number of Dots (W×H)	240×128	dots
Dot Pitch (W×H)	0.45×0.45	mm
Dot Size (W×H)	0.4×0.4	mm

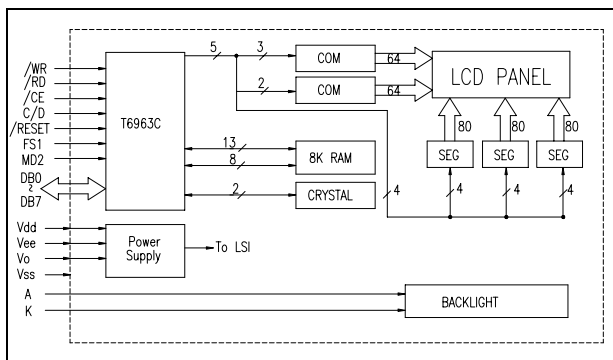
3. ELECTRICAL CHARACTERISTICS (Ta=25 °C)

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT	
			MIN.	TYP.	MAX.		
Supply Voltage (Logic)	$V_{DD} - V_{SS}$		4.5	5.0	5.5	V	
Supply Current (Logic)	I_{DD}	$V_{DD}=5V$	-	8.7	13.0	mA	
Input Voltage	"HIGH"	V_{IH}	-	$V_{DD} - 2.2$	-	V_{DD}	V
	"LOW"	V_{IL}	-	0	-	0.8	V
Output Voltage	"HIGH"	V_{OH}	$I_{OH}=3.0mA$	$V_{DD} - 0.3$	-	V_{DD}	V
	"LOW"	V_{OL}	$I_{OL}=3.0mA$	-	-	0.3	V
LCD Operating Voltage	$V_{DD} - V_o$	$V_{DD}=5V, Ta=25 °C$	-	16.6	-	V	
Supply Voltage LCD Drive	I_o		-	5.47	-	mA	

4. PIN CONFIGURATION

PIN	SYMBOL	SIGNAL DESCRIPTION	PIN	SYMBOL	SIGNAL DESCRIPTION
1	V_{SS}	Ground	12	DB ₅	Data Bit 5
2	V_{DD}	Logic Voltage	13	DB ₆	Data Bit 6
3	V_o	Operating Voltage for LCD (Variable)	14	DB ₇	Data Bit 7
4	C/D	H : Instruction Code, L : Data Code	15	/CE	Chip Enable Signal
5	/RD	Read Signal	16	/RES	Reset Signal
6	/WR	Write Signal	17	V_{EE}	Supply Voltage for LCD Driver
7	DB ₀	Data Bit 0	18	MD2	Number of Columns Select Signal
8	DB ₁	Data Bit 1	19	FS1	Font Select (H : 6X8 Dots, L : 8X8))
9	DB ₂	Data Bit 2	20	NC	No Connection
10	DB ₃	Data Bit 3	21	A	Anode of LED Unit
11	DB ₄	Data Bit 4	22	K	Cathode of LED Unit

5. BLOCK DIAGRAM



6. BACKLIGHTING CHARACTERISTICS (Ta=25 °C)

LED

ITEM	SYMBOL	CONDITION	MIN	TYP	MAX	UNIT
Supply Voltage	V_{LED}	-	-	4.1	4.5	V
Power Consumption	P_{LED}	$I_F=720mA$	-	2950	-	mW
Luminous	I_V	$I_F=720mA$	-	190	-	cd/m ²