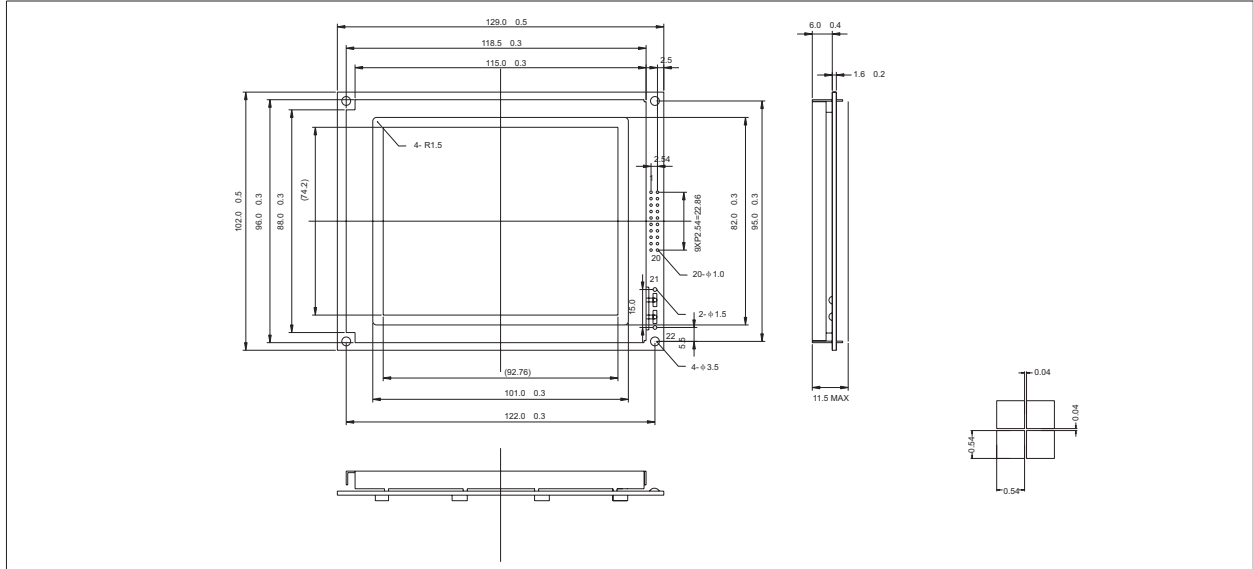


YMS160128-01

160x 128DOTS  
1/128DUTY, 1/12BIAS

1 EXTERNAL DIMENSION AND DISPLAY PATTERN



2 MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size(W*H*T)	129.0 102.0 11.5	mm
Viewing Area(W*H)	101.0 82.0	mm
Number of Dots	160 128 with Cursor	mm
Dot Pitch (W*H)	0.54 0.54	mm
Dot Size (W*H)	0.58 0.58	mm

3 PIN CONNECTIONS(1)

PIN No.	SYMBOL	FUNCTION
1	FG	Frame Groud
2	VSS	Ground
3	Vdd	Supply Voltage for Logic and LCD
4	VD	Contrast adjust for LCD driving
5	VEE	Power supply for LCD driving
6	/WR	Write Signal
7	/RD	Read Signal
8	/CE	Chip Enable Signal
9	C/D	H:Instruction Code.L:Data
10	/HALT	Sleep Signal
11	/RES	Reset Signal
12-19	DB0-DB7	Data Bus Line
20	NC	No Conn ection
21-22	EL1, EL2	EL Power

4 ABSOLUTE MAXIMUM RATINGS

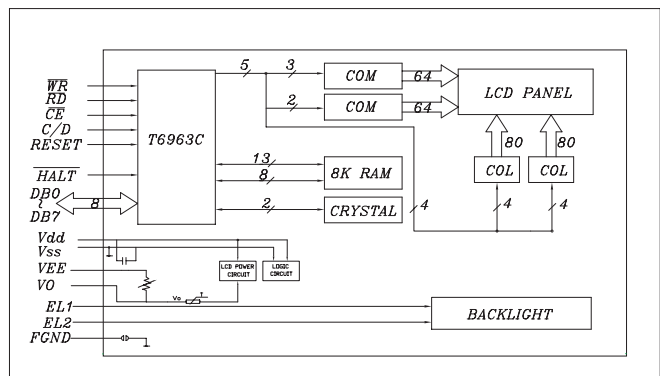
PARAMETER	SYMBOL	MIN	MAX	UNIT
Supply Voltage Logic	VDD-VSS	-0.3	7.0	V
Intut Voltage	VIN	-0.3	Vdd+0.3	V

Operating Temp	See page 9
Storage Temp	

5 ELECTRICAL CHARACTERISTICS(Ta=25 °C )

ITEM	SYMBOL	CONDITION	SPEC.VALUE			UNIT
			MIN.	TYP.	MAX.	
Supply Voltage (Logic)	$V_{CC}-V_{SS}$		4.5	5.0	5.5	V
Supply Current (Logic)	$I_{DD}$	$V_{DD}=5V$	-	3.0	4.5	mA
Input Voltage	HIGH	$V_{IH}$	$V_{DD}-2.2$	-	$V_{DD}$	V
	LOW	$V_{IL}$	0	-	0.8	V
Output Voltage	HIGH	$V_{OH}$	$V_{DD}-0.3$	-	$V_{DD}$	V
	LOW	$V_{OL}$	-	-	0.3	V
LCD Operating Voltage	$V_{CC}-V_{EE}$	$V_{DD}=5V$ $T_a=25\text{ }^\circ\text{C}$	-	19.3	-	V
Supply Voltage LCD Drive	$I_{EE}$		-	0.8	-	mA

6 BLOCK DIAGRAM



7 BACKLIGHTING CHARACTERISTICS(Ta=25 °C )

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIX
Supply Voltage	$V_{LED}$			110		V
Power Consumption	$P_{LED}$			400		Hz
Luminous			30			cd/m <sup>2</sup>