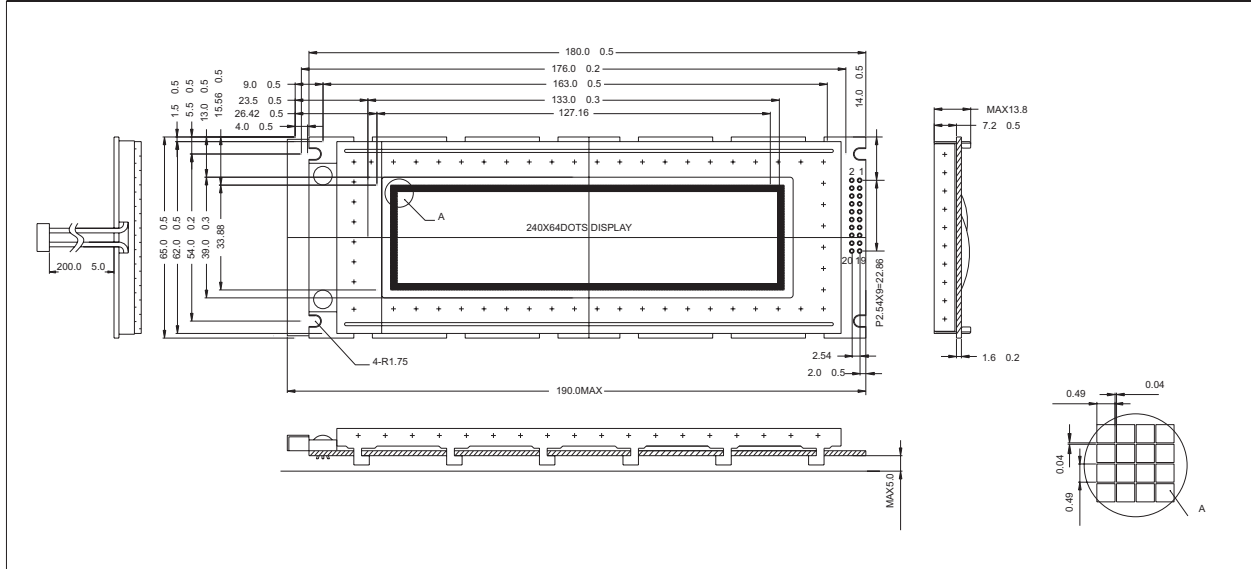


STANDARD GRAPHIC MODULES

YMS24064-03

240CHAR x128LINE
1/64DUTY, 1/9BIAS

1 EXTERNAL DIMENSION AND DISPLAY PATTERN



2 MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size(W*H*T)	190.0 65.0 13.8	mm
Viewing Area(W*H)	133.0 39.0	mm
Number of Dots	240 128 with Cursor	mm
Dot Pitch (W*H)	0.49 0.49	mm
Dot Size (W*H)	0.53 0.53	mm

3 PIN CONNECTIONS(1)

PIN No.	SYMBOL	FUNCTION
1	FG	Frame Ground
2	Vss	Ground
3	Vdd	Supply Voltage for Logic and LCD
4	V0	Contrast adjust for LCD driving
5	/WR	Write Signal
6	/RD	Read Signal
7	/CE	Chip Enable Signal
8	C/D	H: Instruction Code, L: Data
9	A	CCFL Power
10	/RES	Reset Signal
11-18	DB0-DB7	Data Bus Line
19	FS	Font Select Signal
20	K	CCFL Power

4 ABSOLUTE MAXIMUM RATINGS

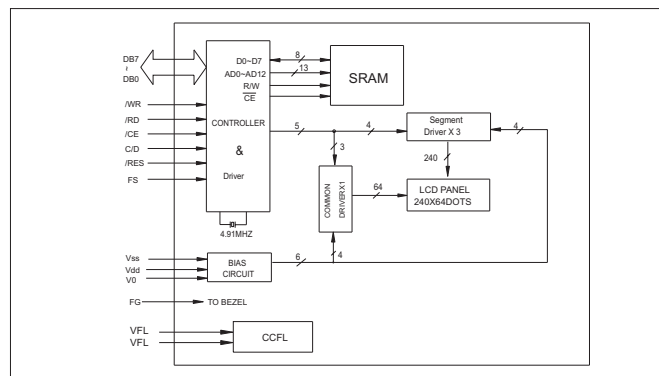
PARAMETER	SYMBOL	MIN	MAX	UNIT
Supply Voltage Logic	VDD-VSS	-0.3	7.0	V
	VDD-VEE	-0.3	30	
Intut Voltage	VIN	-0.3	Vdd+0.3	V

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}	$V_{DD}=5V$	-	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}	$V_{DD}-0.3$	-	V_{DD}	V
	LOW	V_{OL}	0	-	0.3	V
LCD Operating Voltage	$V_{CC}-V_{EE}$	$V_{DD}=5V$ $T_a=25\text{ }^\circ\text{C}$	-	13.6	-	V
Supply Voltage LCD Drive	I_{EE}		-	2.0	0.3	mA

6 BLOCK DIAGRAM



7 BACKLIGHTING CHARACTERISTICS(Ta=25 °C)

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIX
Supply Voltage	V_{EL}		150	200	250	V
Power Consumption	F_{EL}			400		Hz
Luminous					501	cd/m ²