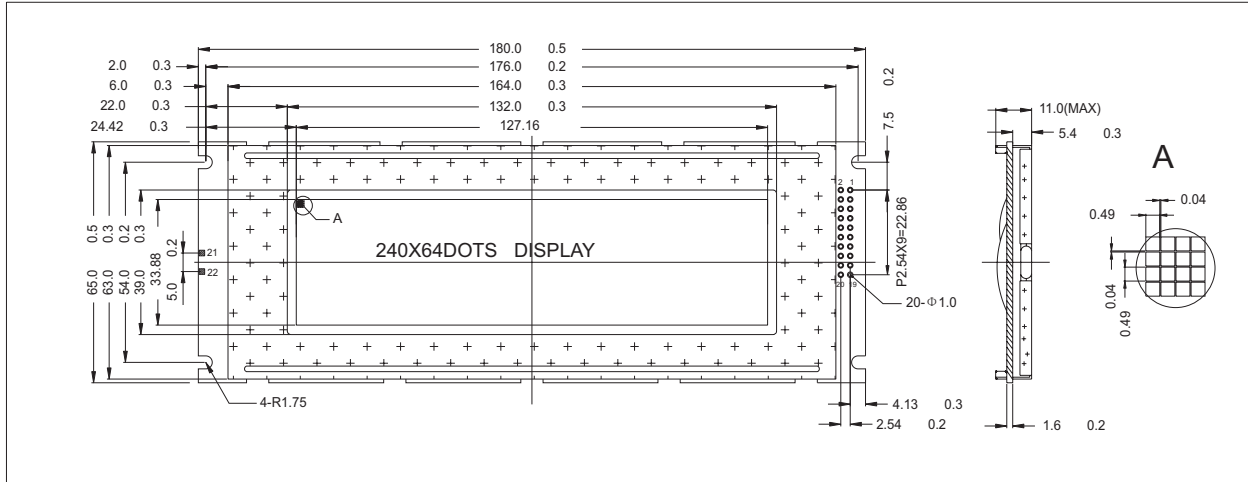


YMS24064-01

240 x 64DOTS
1/64DUTY, 1/9BIAS

1 EXTERNAL DIMENSION AND DISPLAY PATTERN



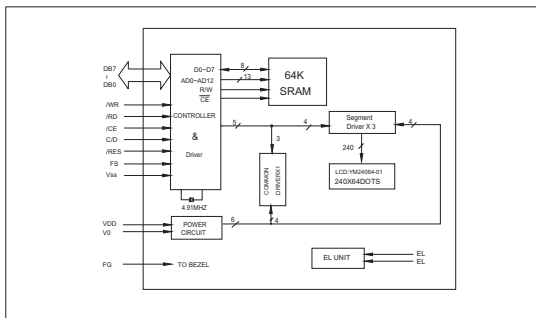
2 MECHANICAL DATA

ITEM	SPECIFICATION	UNIT
Module Size(WXHXH)	180.0 x 65.0 x 11.0	mm
Viewing Area(WXH)	132.0 x 39.0	mm
Number of Dots	240 x 64	dots
Dot Pitch (WXH)	0.53 x 0.53	mm
Dot Size(WXH)	0.49 x 0.49	mm

3 PIN CONFIGURATION

PIN	SYMBOL	LEVEL	SIGNAL DESCRIPTION
1	FG	0V	
2	V _{SS}	0V	GND(0V)
3	V _{DD}	+5V	Supply Voltage for Logic and LCD
4	V _s	-	Operating Voltage for LCD (Variable)
5	/WR	L	Write Signal
6	/RD	L	Read Signal
7	/CE	L	Chip Enable Signal
8	C/D	H/L	H:Instruction Code,L:Data Code
9	NC	-	No Connection
10	/RES	H,H-L	Reset Signal
11	DB0	H/L	Data Bit 0
12	DB1	H/L	Data Bit 1
13	DB2	H/L	Data Bit 2
14	DB3	H/L	Data Bit 3
15	DB4	H/L	Data Bit 4
16	DB5	H/L	Data Bit 5
17	DB6	H/L	Data Bit 6
18	DB7	H/L	Data Bit 7
19	FS	H/L	Font Select Signal(H:6 x 8Dots,L:8 x 8 Dots)
20	NC	-	No Connection
21	EL		EL Power
22	EL		EL Power

4 BLOCK DIAGRAM



5 ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
Supply Voltage Logic	V _{DD} (V _{DD} -V _{ES})	-0.3	7.0	V
Supply Voltage Driver	V _{DD} -V _{EE}	-0.3	30.0	V
Input Voltage	V _{IN}	-0.3	V _{DD} +0.3	V
Operating Temp.		See page 9		
Storage Temp.		See page 9		

6 ELECTRICAL CHARACTERISTICS(Ta=25 °C)

ITEM	SYMBOL	CONDITION	SPEC. VALUE			UNIT
			MIN.	TYP.	MAX.	
Supply Voltage (Logic)	V _{DD} -V _{ES}		4.5	5.0	5.5	V
Supply Current (Logic)	I _{DD}	V _{DD} =5V	-	8.7	13.0	mA
Input Voltage	"HIGH"	V _{IN}	-	V _{DD} -2.2	-	V _{DD} V
	"LOW"	V _{IL}	-	0	-	0.8 V
Output Voltage	"HIGH"	V _{OH}	I _{OL} =3.0mA	V _{DD} -0.3	-	V _{DD} V
	"LOW"	V _{OL}	I _{OL} =3.0mA	0	-	0.3 V
LCD Operating Voltage	V _{EE} -V _O	V _{DD} =5V	-	13.6	-	V
Supply Voltage LCD Drive	I _O	Ta=25 °C	-	2.0	3.0	mA

Note(1): () Value is high Reliability type
Note(2): Electro-Optical Characteristics: See page 6.

7 BACKLIGHT CHARACTERISTICS(Ta=25 °C)

ITEM	SYMBOL	CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Voltage	V _{EL}		80	100	1.20	Ac V _{rms}
Power Consumption	F _{EL}		-	400	-	Hz
Power Consumption	I _{EL}	Va=100V _{rms}	-	9.86	-	mA
Power Consumption	P _{EL}	Fa=400Hz	-	986	-	mW
Luminous			45	55	-	cd/m ²

8 SWITCHING TIMEING CHARACTERISTICS

PARAMETER	SYMBOL	MIN.	MAX.	UNIT
C/D SET Up Time	T _{CSU}	100	-	ns
C/D Hold Time	T _{CDH}	10	-	ns
/CE, /RD, /WR Puls Width	T _{CE} , T _{RD} , T _{WR}	80	-	ns
Data Set Up Time	T _{DSU}	80	-	ns
Access time	T _{DA}	40	-	ns
Output Hold time	T _{DOH}	-	150	ns
Output Hold time	T _{DOH}	10	50	ns

Condition: V_{DD}=+5.0V, 10% V_{DD}/V_{DD}=25 °C

