



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WG24064E

General Specification

Item	Dimension	Unit
Number of dots	240 x 64	—
Module dimension	180.0 x 60.0 x 12.2 (MAX)	mm
View area	137.0 x 44.0	mm
Active area	127.17 x 33.89	mm
Dot size	0.50 x 0.50	mm
Dot pitch	0.53 x 0.53	mm
Duty	1/64	
Backlight Type	LED	
IC	RA6963	
Interface	8080	

Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	°C
Storage Temperature	T_{ST}	-30	—	+80	°C
Input Voltage	V_{IN}	-0.3	—	$V_{DD}+0.3$	V
Supply Voltage For Logic	$V_{DD}-V_{SS}$	-0.3	—	+7.0	V

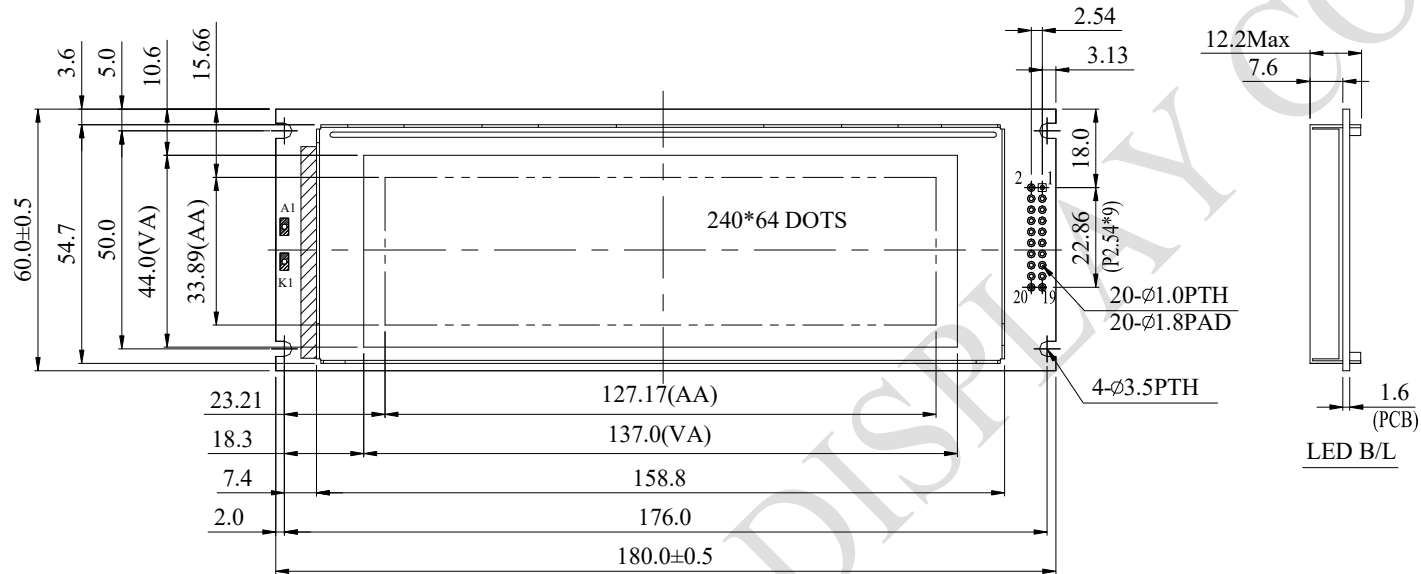
Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage For Logic	$V_{DD}-V_{SS}$	—	4.5	5.0	5.5	V
Supply Voltage For LCD	$V_{DD}-V_0$	$T_a=-20^{\circ}\text{C}$	—	—	14.2	V
		$T_a=25^{\circ}\text{C}$	13.0	13.25	13.5	V
		$T_a=70^{\circ}\text{C}$	10.1	—	—	V
Input High Volt.	V_{IH}	—	$0.8V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	0	—	$0.15 V_{DD}$	V
Output High Volt.	V_{OH}	—	$V_{DD}-0.3$	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	0	—	0.3	V
Supply Current	I_{DD}	—	—	7	—	mA

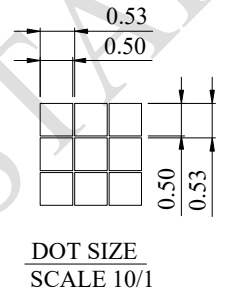
Interface Pin Function

Pin No.	Symbol	Level	Description
1	FG	-	Frame ground
2	Vss	-	GND
3	Vdd	-	Power supply
4	Vo	-	Power supply for LCD driver
5	/WR	L	Data write. Write data into RA6963C when WR = L
6	/RD	L	Data read. Read data from RA6963C when RD = L
7	/CE	L	L : Chip enable
8	C/D	H / L	WR=L , C/D=H : Command Write C/D=L: Data write RD=L , C/D=H : Status Read C/D=L: Data read
9	Vee	-	Negative Voltage Output
10	/RESET	H / L	H : Normal ; L : Initialize RA6963C
11	DB0	H / L	Data bus line
12	DB1	H / L	Data bus line
13	DB2	H / L	Data bus line
14	DB3	H / L	Data bus line
15	DB4	H / L	Data bus line
16	DB5	H / L	Data bus line
17	DB6	H / L	Data bus line
18	DB7	H / L	Data bus line
19	FS	H / L	Pins for selection of font; H : 6 * 8 , L : 8 * 8
20	LED K	-	Power supply for B/L -

Contour Drawing



PIN NO.	SYMBOL
1	FG
2	Vss
3	Vdd
4	Vo
5	WR
6	RD
7	CE
8	C/D
9	Vee
10	RESET
11	DB0
12	DB1
13	DB2
14	DB3
15	DB4
16	DB5
17	DB6
18	DB7
19	FS
20	LEDK



The non-specified tolerance of dimension is $\pm 0.3\text{mm}$.