



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司



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SPECIFICATION

MODULE NO.:

WG128128A

General Specification

Item	Dimension	Unit
Number of dots	128 x 128	—
Module dimension	85.0 x 100.0 x 14.5 (MAX)	mm
View area	62.0 x 62.0	mm
Active area	55.01 x 55.01	mm
Dot size	0.40 x 0.40	mm
Dot pitch	0.43 x 0.43	mm
Duty	1/128	
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

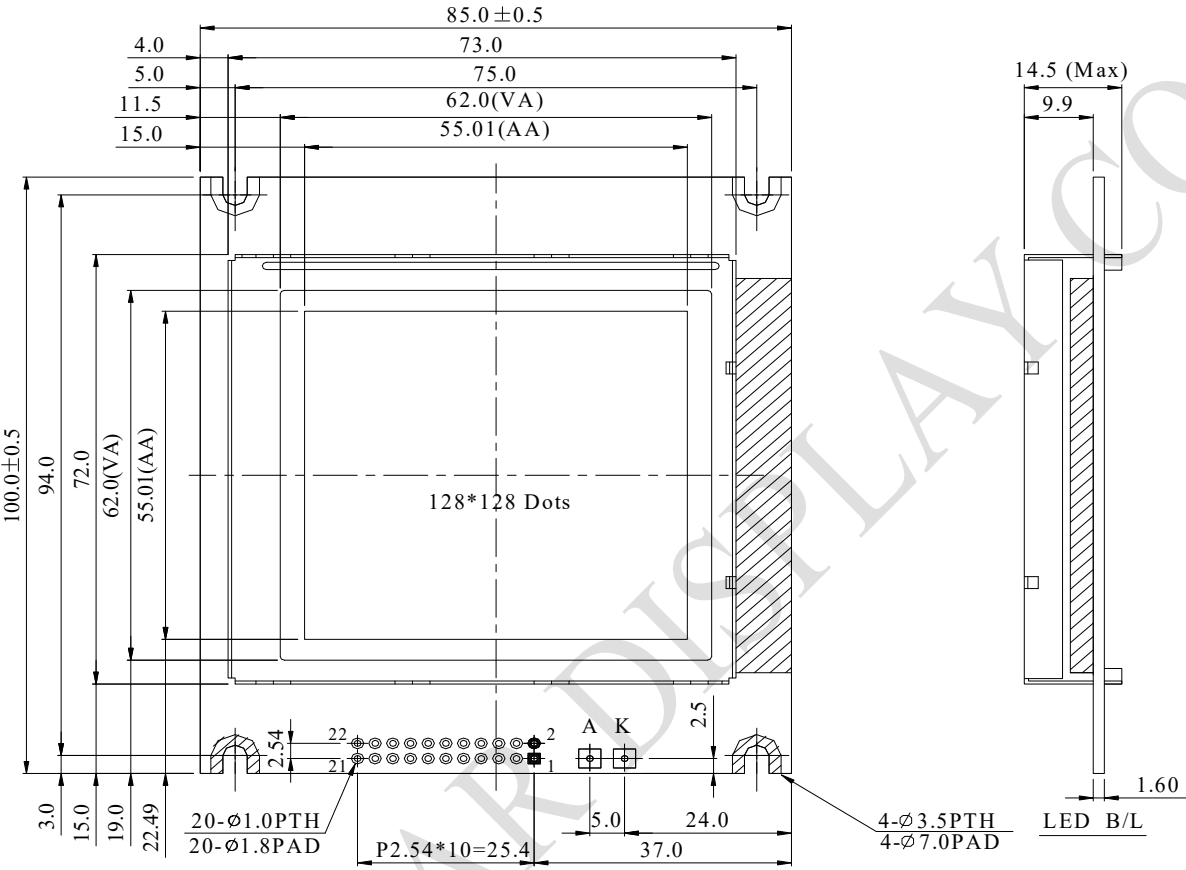
Electrical Characteristics

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	$V_{DD}-V_0$	$T_a=-20^{\circ}\text{C}$	—	—	18.6	V
		$T_a=25^{\circ}\text{C}$	16.2	16.35	16.5	V
		$T_a=70^{\circ}\text{C}$	15.2	—	—	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}	—	—	45	50	mA

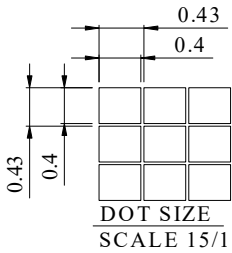
Interface Pin Function

Pin No.	Symbol	Level	Description
1	FGND	—	Frame ground
2	GND	0V	Ground
3	Vdd	—	Power supply for logic
4	Vo	—	Power supply for LCD driver
5	/WR	L	Data write. Write data into RA6963 when /WR = L
6	/RD	L	Data read. Read data from RA6963 when RD = L
7	/CE	L	Chip enable the controller RA6963
8	C/D	H / L	WR=L , C/D=H : Command Write C/D=L: Data write
9	NC	—	No connection
10	/RESET	L	Reset signal
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	Vee	—	Negative Voltage Output
21	A	—	Power supply for B/L +
22	K	—	Power supply for B/L—

Contour Drawing



PIN NO.	SYMBOL
1	FGND
2	GND
3	Vdd
4	VO
5	WR
6	RD
7	CE
8	C/D
9	NC
10	RESET
11	DB0
12	DB1
13	DB2
14	DB3
15	DB4
16	DB5
17	DB6
18	DB7
19	FS
20	VEE
21	A
22	K



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