



WINSTAR Display Co.,Ltd.
華凌光電股份有限公司

SPECIFICATION

MODULE NO.: WG12864C

General Specification

Item	Dimension	Unit
Number of dots	128 x 64	—
Module dimension	78.0 x 70.0 x 14.3 (MAX)	mm
View area	62.0 x 44.0	mm
Active area	56.28 x 38.36	mm
Dot size	0.40 x 0.56	mm
Dot pitch	0.44 x 0.60	mm
Duty	1/64	
Backlight Type	LED	
IC	NT7107, NT7108	
Interface	6800	

Absolute Maximum Ratings

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

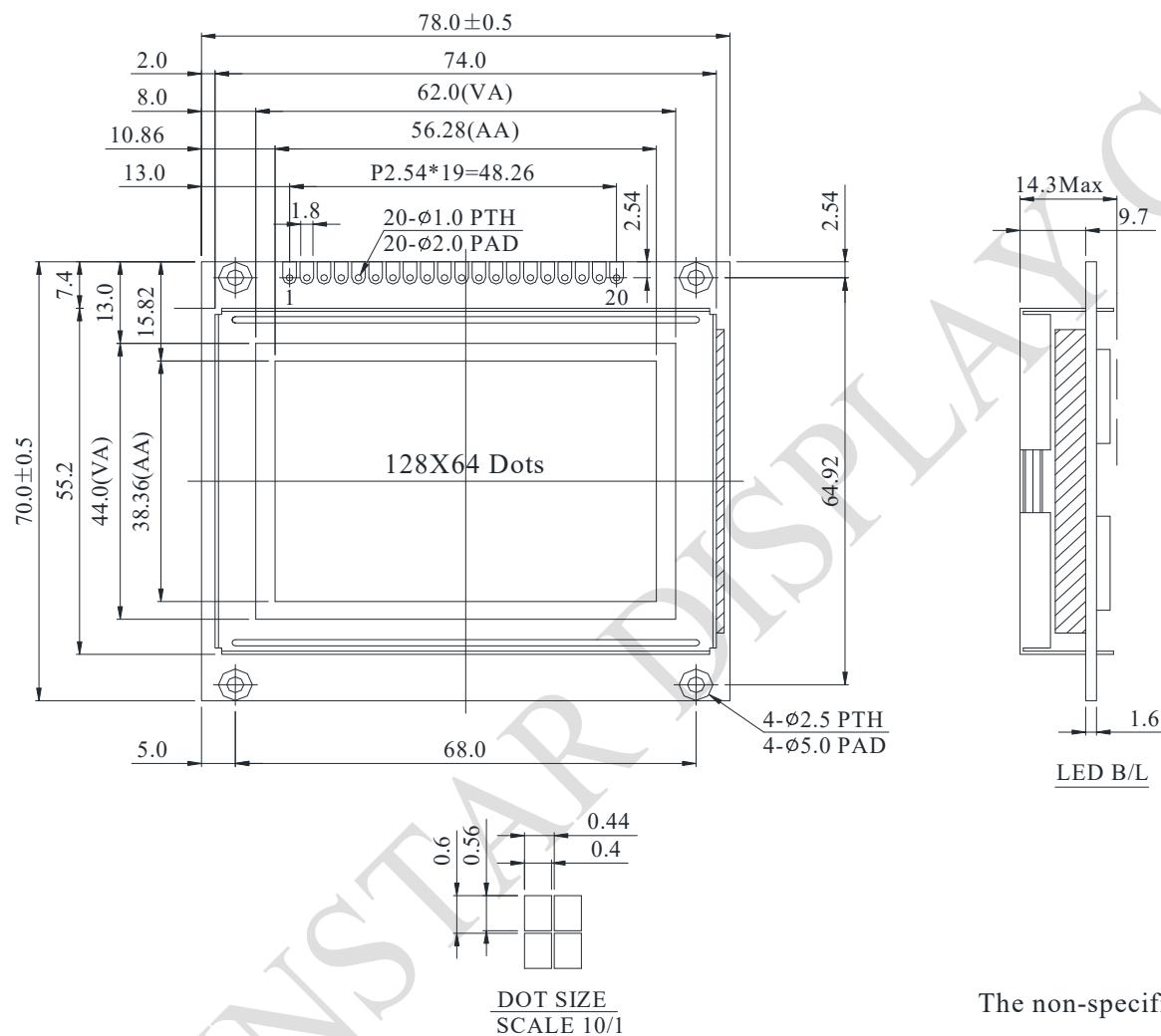
Electrical Characteristics

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	$V_{DD}-V_O$	$T_a=-20^{\circ}\text{C}$	—	—	9.6	V
		$T_a=25^{\circ}\text{C}$	8.2	8.5	8.8	V
		$T_a=70^{\circ}\text{C}$	8.2	—	—	V
Input High Volt.	V_{IH}	—	$0.7 V_{DD}$	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	0	—	0.8	V
Output High Volt.	V_{OH}	—	2.4	—	—	V
Output Low Volt.	V_{OL}	—	—	—	0.4	V
Supply Current	I_{DD}	$V_{DD}=5.0\text{V}$	2.0	4.0	8.0	mA

Interface Pin Function

Pin No.	Symbol	Level	Description
1	/CS1	L	Select Segment 1 ~ Segment 64
2	/CS2	L	Select Segment 65 ~ Segment128
3	Vss	0V	Ground
4	VDD	5.0V	Supply voltage for logic
5	Vo	(Variable)	Operating voltage for LCD
6	D/I	H/L	H: Data , L: Instruction
7	R/W	H/L	H: Read(MPU←Module) , L :Write(MPU→Module)
8	E	H	Enable signal
9	DB0	H/L	Data bus line
10	DB1	H/L	Data bus line
11	DB2	H/L	Data bus line
12	DB3	H/L	Data bus line
13	DB4	H/L	Data bus line
14	DB5	H/L	Data bus line
15	DB6	H/L	Data bus line
16	DB7	H/L	Data bus line
17	RST	L	Reset the LCM
18	VEE	—	Negative Voltage Output
19	A	—	Power supply for B/L (+)
20	K	—	Power supply for B/L (-)

Contour Drawing



PIN NO.	SYMBOL
1	CS1
2	CS2
3	VSS
4	VDD
5	V0
6	D/I
7	R/ $\bar{W}$
8	E
9	DB0
10	DB1
11	DB2
12	DB3
13	DB4
14	DB5
15	DB6
16	DB7
17	RST
18	VEE
19	A
20	K

The non-specified tolerance of dimension is ± 0.3 mm .