WINSTAR Display

OLED SPECIFICATION

Model No:

WEO12864L#J01-FC

WINSTAR DISPLAY Co., Ltd.
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Represented by:

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SPECIFICATION Version: C

CUSTOMER :
MODULE NO. : WEO12864L#J01-FC

APPROVED BY: **(FOR CUSTOMER USE ONLY)**	

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
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RELEASE DATE:			

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2.General Specification

Item	Dimension	Unit
Dot Matrix	128 x 64	—
Module dimension	75.0 × 52.7 × 8.5	mm
Active Area	55.01 × 27.49	mm
Pixel Size	0.40 × 0.40	mm
Pixel Pitch	0.43 × 0.43	mm
Display Mode	Passive Matrix	
Display Color	Monochrome (Yellow)	
Drive Duty	1/64 Duty	
IC	SSD1309	
Interface	8080	
Size	2.42 inch	

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4.Interface Pin Function

No.	Symbol	Function
1	VDD	Power supply pin for core logic operation.
2	VSS	Ground.
3	NC	No connection
4~11	D0~D7	These pins are bi-directional data bus connecting to the MCU data bus. Unused pins are recommended to tie LOW.
12	CS	This pin is the chip select input connecting to the MCU. The chip is enabled for MCU communication only when CS# is pulled LOW (active LOW).
13	NC	No connection
14	/RES	This pin is reset signal input. When the pin is pulled LOW, initialization of the chip is executed. Keep this pin pull HIGH during normal operation.
15	R/W	This pin is read / write control input pin connecting to the MCU interface. When 8080 interface mode is selected, this pin will be the Write (WR#) input. Data write operation is initiated when this pin is pulled LOW and the chip is selected.
16	D/C	This pin is Data/Command control pin connecting to the MCU. When the pin is pulled HIGH, the data at D[7:0] will be interpreted as data. When the pin is pulled LOW, the data at D[7:0] will be transferred to a command register.
17	E	This pin is MCU interface input. When 8080 interface mode is selected, this pin receives the Read (RD#) signal. Read operation is initiated when this pin is pulled LOW and the chip is selected.
18	NC	No connection
19	DISP	Display off when it's pulled low; Display on when it's pulled high.
20	NC	No connection

* 80 Series Interface is default

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5.Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	VDD	-0.3	4.0	V	1, 2
Operating Temperature	TOP	-40	+80	°C	-
Storage Temperature	TSTG	-40	+85	°C	-

Note 1: All the above voltages are on the basis of “VSS = 0V”.
Note 2: When this module is used beyond the above absolute maximum ratings, permanent breakage of the module may occur. Also, for normal operations, it is desirable to use this module under the conditions according to Section 6 ‘’Electrical Characteristics”. If this module is used beyond these conditions, malfunctioning of the module can occur and the reliability of the module may deteriorate.

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6.Electrical Characteristics

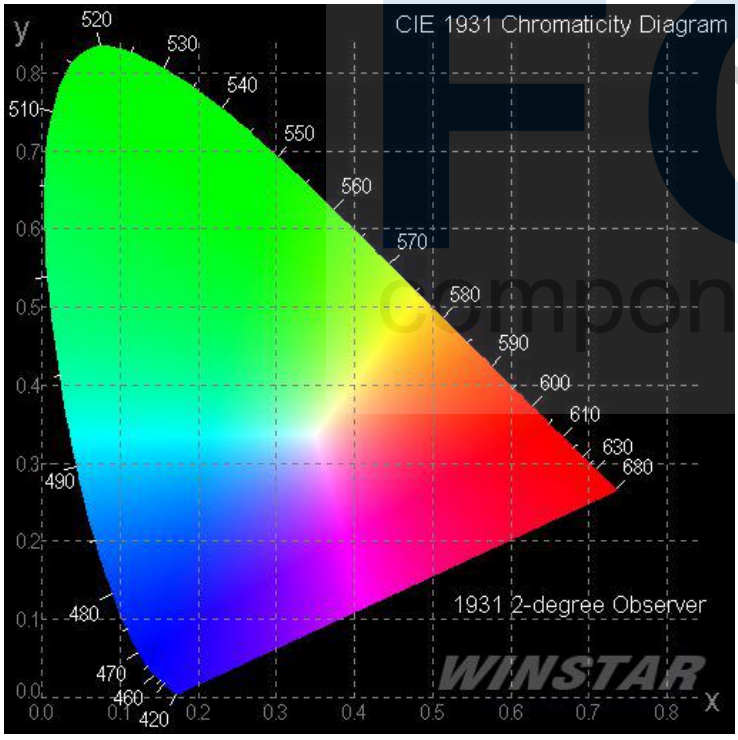
6.1 DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic	VDD	–	2.8	3.0	3.3	V
High Level Input	VIH	–	0.8×VDD	–	–	V
Low Level Input	VIL	–	–	–	0.2×VDD	V
High Level Output	VOH	–	0.9×VDD	–	–	V
Low Level Output	VOL	–	–	–	0.1×VDD	V
50% Checkerboard operating Current	IDD	VDD =3.0V	–	135	150	mA

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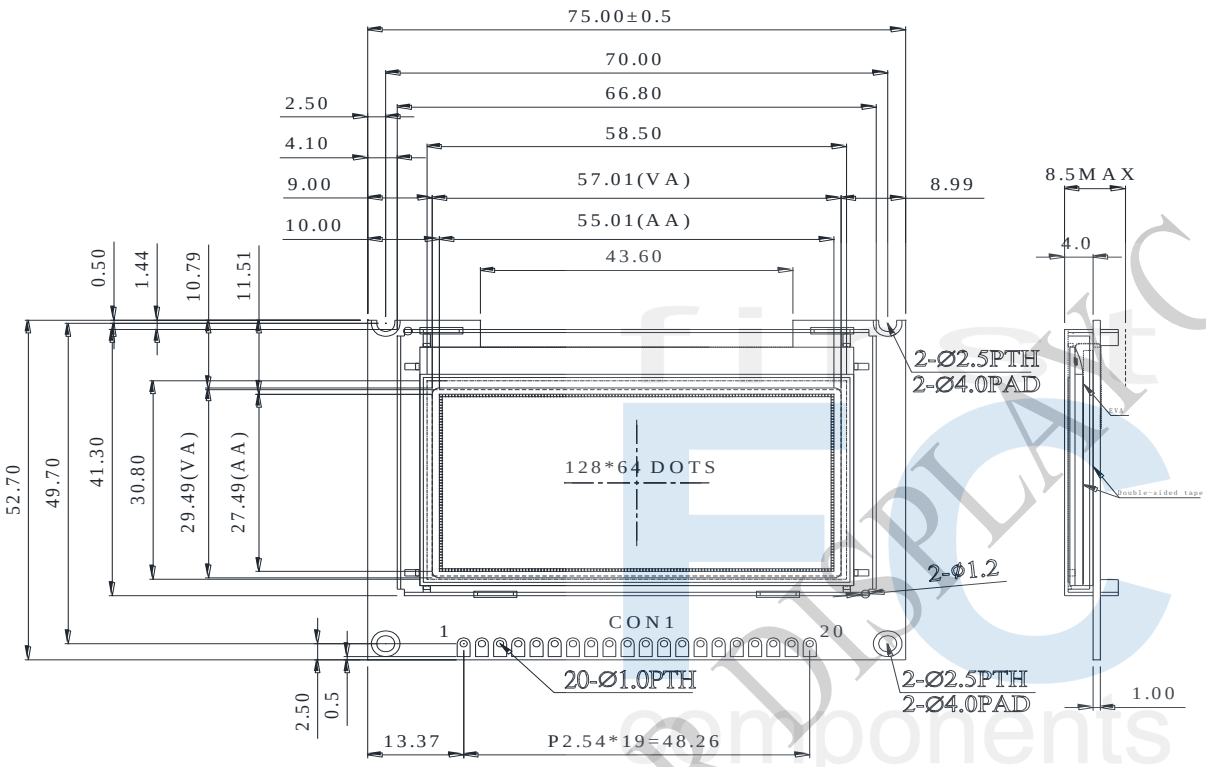
7.Optical Characteristics

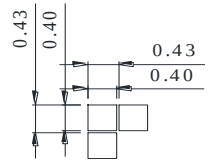
Item	Symbol	Condition	Min	Typ	Max	Unit
View Angle	(V)θ	—	160	—	—	deg
	(H)φ	—	160	—	—	deg
Contrast Ratio	CR	Dark	10,000:1	—	—	—
Response Time	T rise	—	—	10	—	μs
	T fall	—	—	10	—	μs
Display with 50% checkerboard Brightness			80	100	—	cd/m2
CIEx(Yellow)		x,y(CIE1931)	0.45	0.47	0.49	—
CIEy(Yellow)		x,y(CIE1931)	0.48	0.50	0.52	—



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3. Contour Drawing & Block Diagram





Detail DOTS Scale 10:1

CON1	
PIN NO.	SYMBOL
1	VDD
2	VSS
3	NC
4	DB0
5	DB1
6	DB2
7	DB3
8	DB4
9	DB5
10	DB6
11	DB7
12	CS
13	NC
14	/RES
15	R/W
16	D/C
17	E
18	NC
19	DISP
20	NC

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

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