Represented by:

FIRST Components s.r.l.
www.first-components.com
technical@first-components.com
+39 0332 1888005

WINSTAR Display

OLED SPECIFICATION

Model No:

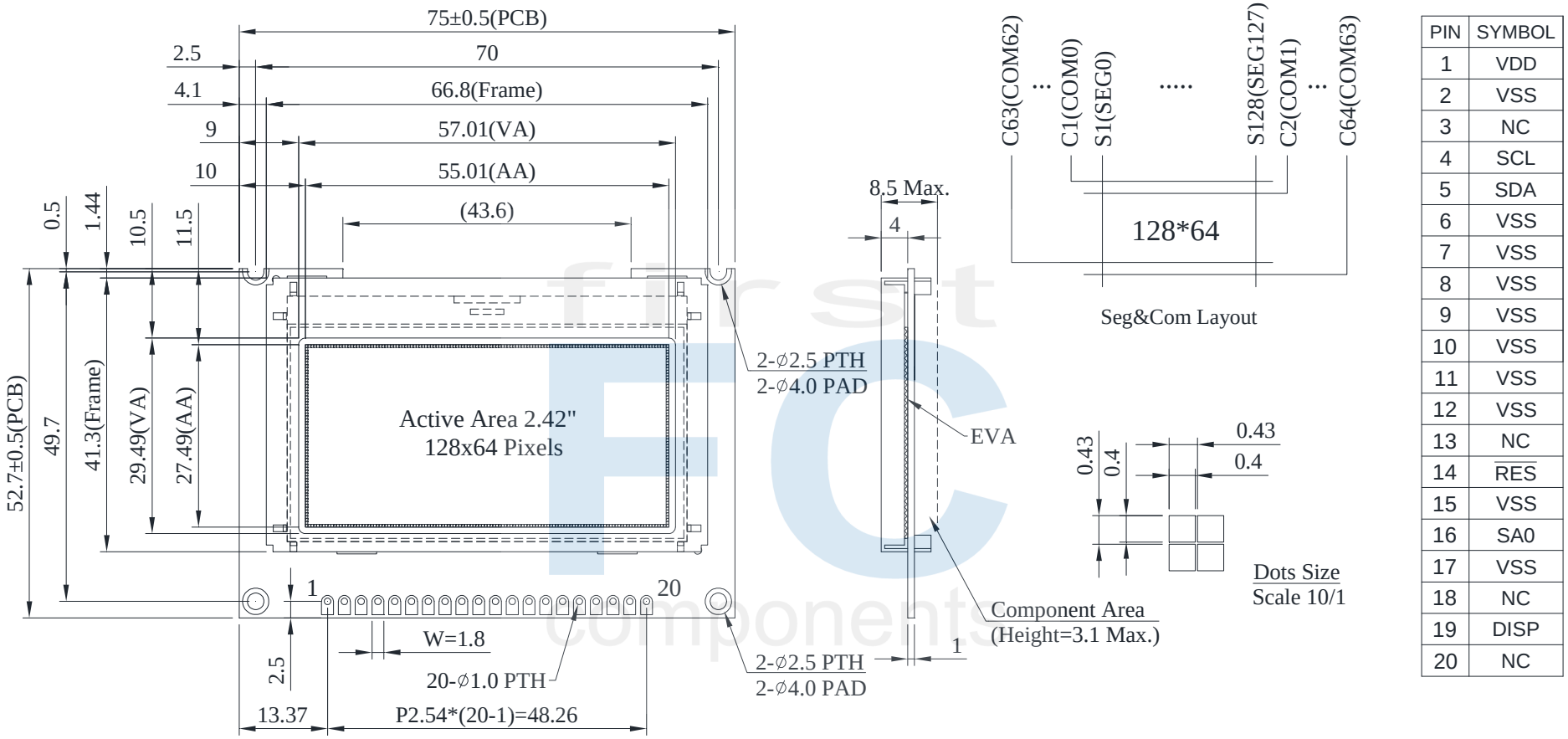
WEP12864L#ALP3N00F00-FC

General Specification

Item	Dimension	Unit
Dot Matrix	128 x 64	—
Module dimension	75.0 × 52.7 × 8.5(Max).	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	SH1106	
Interface	I2C	
Size	2.42 inch	

first components

Contour Drawing & Block Diagram



PIN	SYMBOL
1	VDD
2	VSS
3	NC
4	SCL
5	SDA
6	VSS
7	VSS
8	VSS
9	VSS
10	VSS
11	VSS
12	VSS
13	NC
14	$\overline{\text{RES}}$
15	VSS
16	SA0
17	VSS
18	NC
19	DISP
20	NC

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

Interface Pin Function

No.	Symbol	Function
1	VDD	Power supply input
2	VSS	Ground.
3	NC	No connection
4	SCL	When the I2C interface is selected, then D0 serves as the serial clock input pad (SCL) and D1 serves as the serial data input pad (SDAI). At this time, D2 to D7 are set to high impedance.
5	SDA	
6~12	VSS	Ground.
13	NC	No connection
14	$\overline{RES}$	This is a reset signal input pad. When $\overline{RES}$ is set to “L”, the settings are initialized. The reset operation is performed by the $\overline{RES}$ signal level.
15	VSS	Ground.
16	SA0	In I2C interface, this pad serves as SA0 to distinguish the different address of OLED driver.
17	VSS	Ground.
18	NC	No connection
19	DISP	Display off when it's pulled low; Display on when it's pulled high.
20	NC	No connection

first components

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	VDD	-0.3	3.6	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”.
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.
3. The absolute limit temperature was verified according to the test conditions of reliability test (See section 9. Reliability) , and module was met all criteria.
4. The defined temperature ranges do not include the polarizer. The maximum withstood temperature of the polarizer should be 80 °C.

first components

Electrical Characteristics

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	–	VDD	V
Low Level Input	VIL	–	VSS	–	0.2×VDD	V
High Level Output	VOH	–	0.8×VDD	–	VDD	V
Low Level Output	VOL	–	VSS	–	0.2×VDD	V
Display 50% Pixel on	IDD	VDD =3.0V	–	60	120	mA

first FC components