WINSTAR Display

OLED SPECIFICATION

Model No:

WEA128128L#AA3N00000-FC

Represented by:

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SPECIFICATION Version: C

CUSTOMER :
MODULE NO. : WEA128128L#AA3N00000-FC

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

SALES BY	APPROVED BY	CHECKED BY	PREPARED BY
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RELEASE DATE:			

■APPROVAL FOR SPECIFICATIONS ONLY

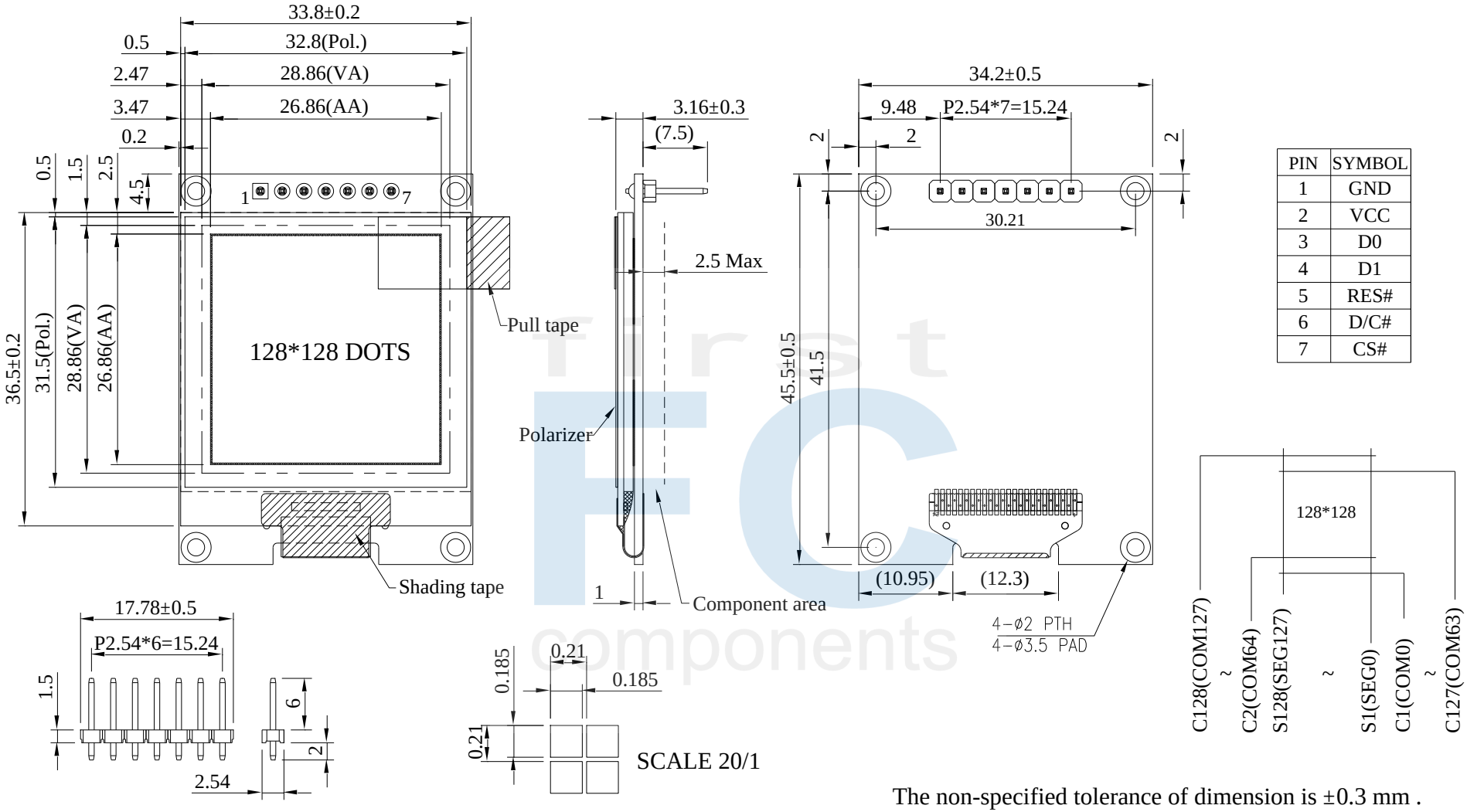
□APPROVAL FOR SPECIFICATIONS AND SAMPLE

2.General Specification

Item	Dimension	Unit
Dot Matrix	128 x 128 Dots	—
Module dimension	34.2 x 45.5 x 3.16	mm
Active Area	26.86 x 26.86	mm
Pixel Size	0.185 x 0.185	mm
Pixel Pitch	0.210 x 0.210	mm
Display Mode	Passive Matrix	
Display Color	Yellow	
Drive Duty	1/128 Duty	
Gray Scale	4 bits	
IC	SSD1327	
Interface	4-Wire SPI	
Size	1.5 inch	

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3. Contour Drawing & Block Diagram



PIN	SYMBOL
1	GND
2	VCC
3	D0
4	D1
5	RES#
6	D/C#
7	CS#

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

4.Interface Pin Function

No.	Symbol	Function
1	GND	This is a ground pin.
2	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin. It is supplied by external high voltage source.
3	D0	These pins are bi-directional data bus connecting to the MCU data bus. Unused pins are recommended to tie LOW. When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN and D2 should be kept NC.
4	D1	
5	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.
6	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.
7	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).

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5.Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit	Notes
Supply Voltage for Logic	VCC	2.0	5.5	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.

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6.Electrical Characteristics

6.1 DC Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage for Logic(3V/5V)	VCC	—	2.8	3.3	5.2	V
Input High Volt.	VIH	—	0.8×VCC	—	VCC	V
Input Low Volt.	VIL	—	0	—	0.2×VCC	V
Output High Volt.	VOH	—	0.9×VCC	—	VCC	V
Output Low Volt.	VOL	—	0	—	0.1×VCC	V
Display 50% Pixel on	ICC	VCC=3.3V	—	120	240	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			120	150	—	cd/m^2
CIEx(Yellow)		(CIE1931)	0.45	0.47	0.49	—
CIEy(Yellow)		(CIE1931)	0.48	0.50	0.52	—

Note：50% checkerboard means half of the display area turn on & half area turn off, shown as a checkerboard.

