Winstar Display Co., LTD
華凌光電股份有限公司
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SPECIFICATION

MODULE NO.: WO128128-xxxA#FC

General Specification

Item	Dimension	Unit
Number of dots	128 x 128	—
Module dimension	55.0 x 57.0 x 6.18	mm
View area	42.0 x 42.0	mm
Active area	44.0 x 44.0	mm
Dot size	0.308 x 0.308	mm
Dot pitch	0.310 x 0.310	mm
Duty	1/136 DUTY,1/12 BIAS	
Backlight Type	LED	
IC	ST75161	

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	T_{OP}	-20	—	+70	℃
Storage Temperature	T_{ST}	-30	—	+80	℃
Power Supply Voltage	VDD	-0.3	—	4.0	V
LCD Power supply voltage	VLCD	-0.3	—	20	V
LCD Power supply voltage	V0-XV0	-0.3	—	19	V
Input voltage	VIN	-0.3		VDD+0.3	V

Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Supply Voltage For Logic	V_{DD}-V_{SS}	—	2.7	3.0	3.3	V
Supply Voltage For LCD	V_{OP}	Ta=-20℃	—	—	—	V
		Ta=25℃	13.7	14.0	14.3	V
		Ta=70℃	—	—	—	V
Input High Volt.	V_{IH}	—	0.7 V_{DD}	—	V_{DD}	V
Input Low Volt.	V_{IL}	—	Vss	—	0.3 V_{DD}	V
Output High Volt.	V_{OH}	—	0.8 V_{DD}	—	V_{DD}	V
Output Low Volt.	V_{OL}	—	Vss	—	0.2 V_{DD}	V
Supply Current	I_{DD}	V_{DD}=3.0V	—	—	2.0	mA

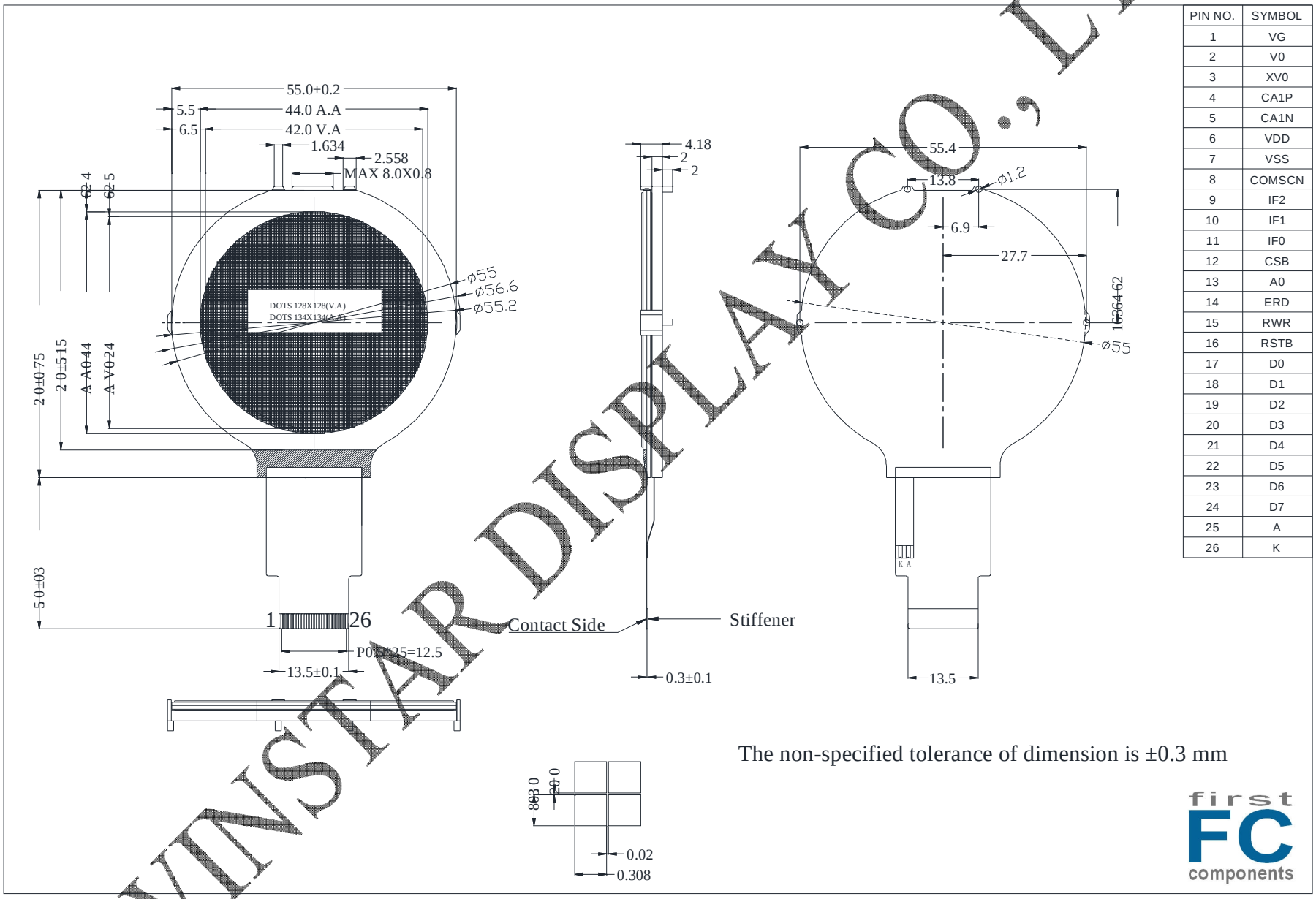
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Interface Pin Function

Pin No.	SYMBOL	Function
1	VG	VG is the power of SEG-drivers.
2	V0	Positive operating voltage of COM-drivers.
3	XV0	Negative operating voltage of COM-drivers.
4	CA1P	DC/DC voltage converter
5	CA1N	
6	VDD	Power supply
7	VSS	Ground
8	COMSCN	Set scan direction of COM.
9	IF2	These pins select interface operation mode.
10	IF1	
11	IF0	
12	CSB	Chip select input pin.
13	A0	It determines whether the access is related to data or command.
14	ERD	Read / Write execution control pin.
15	RWR	Read / Write execution control pin.
16	RSTB	Hardware reset input pin
17-24	D0-D7	When using 8-bit parallel interface: 8080 or 6800 mode:8 bit bi-directional data bus When using serial interface : 4-line SPI or 3-line SPI mode D[7:4] : fix to “H” by VDD1. D[3:1] : serial input/output data (SDA). D[0] : serial input clock (SCL). D1 to D3 must be connected together (SDA) When using serial interface : I2C interface D[7] : SA[1], I2C slave address bit. Must be connected to VDD1 or VSS1. D[6] : SA[0], I2C slave address bit. Must be connected to VDD1 or VSS1. D[5:4] : fix to “H” by VDD1. D[3:2] : SDA_OUT, serial data and acknowledge output for the I2C interface. D[1] : SDA_IN, serial input data D[0] : SCL, serial input clock . D1 to D3 must be connected together (SDA) CSB must be fixed to “L” by VSS1.
25	A	Anode input for LED backlight.
26	K	Cathode input for LED backlight

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Contour Drawing



PIN NO.	SYMBOL
1	VG
2	V0
3	XV0
4	CA1P
5	CA1N
6	VDD
7	VSS
8	COMSCN
9	IF2
10	IF1
11	IF0
12	CSB
13	A0
14	ERD
15	RWR
16	RSTB
17	D0
18	D1
19	D2
20	D3
21	D4
22	D5
23	D6
24	D7
25	A
26	K

The non-specified tolerance of dimension is ±0.3 mm

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