

WINSTAR Display

OLED SPECIFICATION

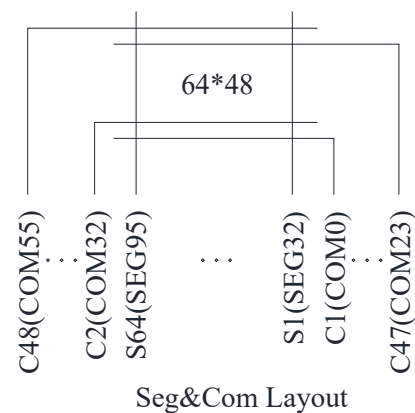
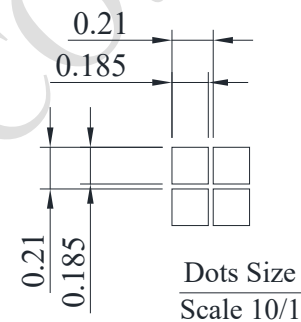
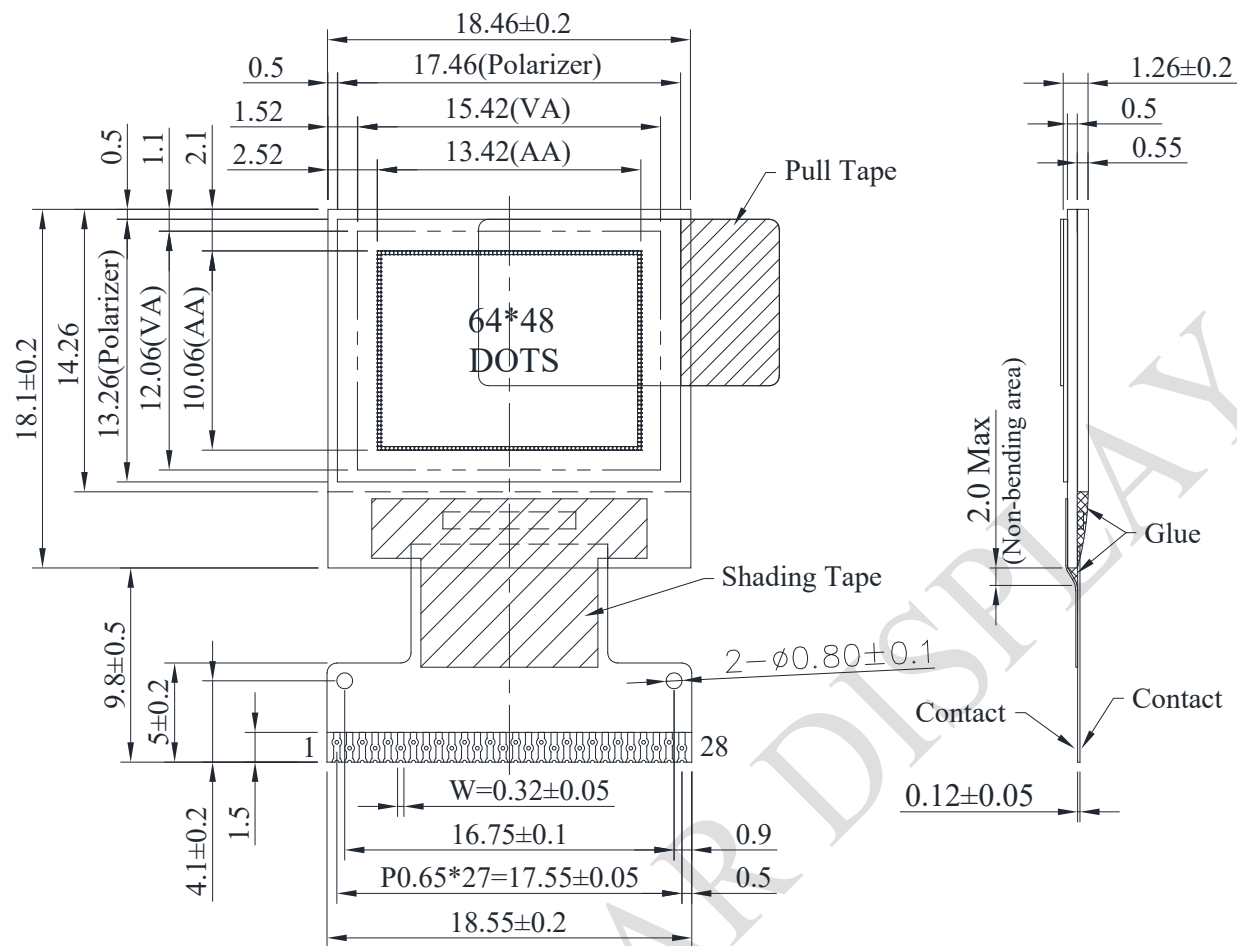
Model No:

WEO006448A

General Specification

Item	Dimension	Unit
Dot Matrix	64 x 48 Dots	—
Module dimension	18.46 × 18.10 × 1.26	mm
Active Area	13.42 × 10.06	mm
Pixel Size	0.185 × 0.185	mm
Pixel Pitch	0.210 × 0.210	mm
Display Mode	Passive Matrix	
Display Color	Monochrome	
Drive Duty	1/48 Duty	
IC	SSD1306	
Interface	6800, 8080, 4-Wire SPI, I2C	
Size	0.66 inch	

Contour Drawing & Block Diagram



PIN	SYMBOL
1	ESD GND
2	C2N
3	C2P
4	C1P
5	C1N
6	VBAT
7	VSS
8	VDD
9	BS1
10	BS2
11	CS#
12	RES#
13	D/C#
14	R/W#
15	E/RD#
16	D0
17	D1
18	D2
19	D3
20	D4
21	D5
22	D6
23	D7
24	IREF
25	VCOMH
26	VCC
27	VLSS
28	ESD GND

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

Interface Pin Function

No.	Symbol	Function															
1	ESD-GND	It should be connected to ground.															
2	C2N	C1P/C1N – Pin for charge pump capacitor; Connect to each other with a capacitor.															
3	C2P																
4	C1P																
5	C1N	C2P/C2N – Pin for charge pump capacitor; Connect to each other with a capacitor.															
6	VBAT	This is the power supply pin for the internal buffer of the DC/DC voltage converter. It must be connected to external source when the converter is used. It should be connected to VDD or kept float when the converter is not used.															
7	VSS	This is a ground pin.															
8	VDD	Power supply pin for core logic operation.															
9	BS1	These pins are MCU interface selection input.															
10	BS2	See the following table:															
		<table><tr><td></td><td>BS1</td><td>BS2</td></tr><tr><td>I2C</td><td>1</td><td>0</td></tr><tr><td>4-wire SPI</td><td>0</td><td>0</td></tr><tr><td>8-bit 6800 Parallel</td><td>0</td><td>1</td></tr><tr><td>8-bit 8080 Parallel</td><td>1</td><td>1</td></tr></table>		BS1	BS2	I2C	1	0	4-wire SPI	0	0	8-bit 6800 Parallel	0	1	8-bit 8080 Parallel	1	1
			BS1	BS2													
		I2C	1	0													
		4-wire SPI	0	0													
8-bit 6800 Parallel	0	1															
8-bit 8080 Parallel	1	1															
11	CS#	This pin is the chip select input. (active LOW).															
12	RES#	This pin is reset signal input. When the pin is low, initialization of the chip is executed. Keep this pin HIGH (i.e. connect to VDD) during normal operation.															
13	D/C#	This is Data/Command control pin. When it is pulled HIGH (i.e. connect to VDD), the data at D[7:0] is treated as data. When it is pulled LOW, the data at D[7:0] will be transferred to the command register. In I2C mode, this pin acts as SA0 for slave address selection.															
14	R/W#	This is read / write control input pin connecting to the MCU interface. When interfacing to a 6800-series microprocessor, this pin will be used as Read/Write (R/W#) selection input. Read mode will be carried out when this pin is pulled HIGH (i.e. connect to VDD) and write mode when LOW. 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. When serial or I2C interface is selected, this pin must be connected to VSS.															

15	E/RD#	When interfacing to a 6800-series microprocessor, this pin will be used as the Enable (E) signal. Read/write operation is initiated when this pin is pulled HIGH (i.e. connect to VDD) and the chip is selected. When connecting to an 8080-series microprocessor, this pin receives the Read (RD#) signal. Read operation is initiated when this pin is pulled LOW and the chip is selected. When serial or I2C interface is selected, this pin must be connected to VSS
16~23	D0~D7	These are 8-bit bi-directional data bus to be connected to the microprocessor's data bus. When serial interface mode is selected, D0 will be the serial clock input: SCLK; D1 will be the serial data input: SDIN. When I2C mode is selected, D2, D1 should be tied together and serve as SDAout, SDAin in application and D0 is the serial clock input, SCL.
24	IREF	This is segment output current reference pin. When external IREF is used, a resistor should be connected between this pin and VSS to maintain the IREF current at a maximum of 30uA. When internal IREF is used, this pin should be kept NC.
25	VCOMH	The pin for COM signal deselected voltage level. A capacitor should be connected between this pin and VSS.
26	VCC	Power supply for panel driving voltage. This is also the most positive power voltage supply pin. When charge pump is enabled, a capacitor should be connected between this pin and VSS.
27	VLSS	This is an analog ground pin. It should be connected to VSS externally.
28	ESD GND	It should be connected to ground.

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Logic	VDD	0	4.0	V
Supply Voltage for Display	VCC	0	15.0	V
Operating Temperature	TOP	-40	+80	°C
Storage Temperature	TSTG	-40	+85	°C