RAYSTAR

RAYSTAR Optronics, Inc.
曜凌光電股份有限公司

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SPECIFICATION
Model No:
REN025664B-CTP

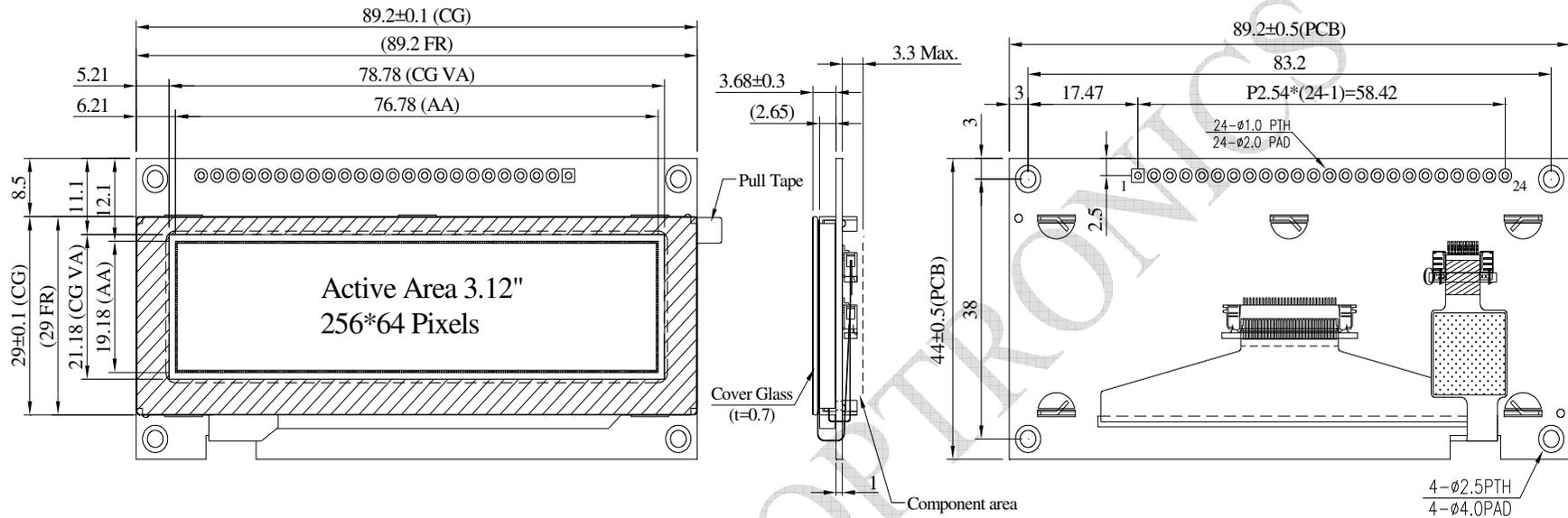## General Specification

The Features is described as follow:

- Module dimension: 89.2 × 44.0 × 7.98 mm

- Active area: 76.78×19.18 mm

- Dot Matrix : 256×64

- Dot Size: 0.278×0.278 mm

- Dot Pitch: 0.3×0.3mm

- Display Mode: Passive Matrix

- Duty: 1/64 Duty

- Gray Scale: 4 bits

- Display Color: Monochrome

- OLED IC: SSD1322 (COF)

- OLED Interface: 6800,8080,SPI

- Size: 3.12 inch

- CTP IC: FT6336U

- Detect Point: 1

- CTP Interface: I2C

- Surface: Normal Glare
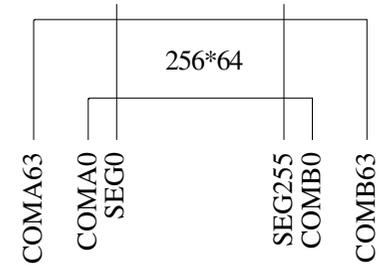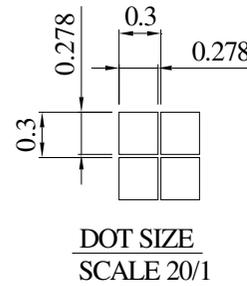
Interface Pin Function

Pin Number	Symbol	I/O	Function
1	**VSS**	P	Ground.
2	**VDD**	P	**Power Supply for Core Logic Circuit** Power supply pin for core logic operation. A capacitor is required to connect between this pin and VSS
3	**N.C.**	P	**Reserved Pin** The N.C. pin between function pins are reserved for compatible and flexible design.
4	**D/C#**	I	**Data/Command Control** This pin is Data/Command control pin connecting to the MCU. When the pin is pulled HIGH, the content at D[7:0] will be interpreted as data. When the pin is pulled LOW, the content at D[7:0] will be interpreted as command.
5	**R/W#** **(WR#)**	I	**Read/Write Select or Write** This pin is MCU interface input. When interfacing to a 68XX-series microprocessor, this pin will be used as Read/Write (R/W#) selection input. Pull this pin to "High" for read mode and pull it to "Low" for write mode. When 80XX 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 CS# is pulled low. When serial mode is selected, this pin must be connected to VSS.
6	**E/RD#**	I	**Read/Write Enable or Read** This pin is MCU interface input. When interfacing to a 68XX-series microprocessor, this pin will be used as the Enable (E) signal. Read/write operation is initiated when this pin is pulled high and the CS# is pulled low. When connecting to an 80XX-microprocessor, this pin receives the Read (RD#) signal. Data read operation is initiated when this pin is pulled low and CS# is pulled low. When serial mode is selected, this pin must be connected to VSS.
7~14	**DB0** **DB1** **DB2** **DB3** **DB4** **DB5** **DB6** **DB7**	I/O	**Host Data Input/Output Bus** These pins are 8-bit bi-directional data bus to be connected to the microprocessor's data bus. When serial mode is selected, D1 will be the serial data input SDIN and D0 will be the serial clock input SCLK.
15	**NC**	P	**Reserved Pin** The N.C. pin between function pins are reserved for compatible and flexible design.
16	**RES#**	I	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.
17	**CS#**	I	***Data/Command Control*** This pin is the chip select input connecting to the MCU. The chip is enabled for MCU communication only when CS# is pulled LOW.
18	**NC**	P	***Reserved Pin*** The N.C. pin between function pins are reserved for compatible and flexible design.
19	**BS1**		Communicating Protocol Select These pins are MCU interface selection input. See the following table:
20	**BS0**	I	
21	**TP_SCK**	I	I2C clock input
22	**TP_SDA**	I	I2C data input and output
23	**TP_INT**	I	External interrupt to the host
24	**TP_RST**	I	External Reset, Low is active

For rows 19–20, the following table and note appear:

BS[1:0]	Bus Interface Selection
00	4 line SPI
01	3 line SPI
10	8-bit 8080 parallel
11	8-bit 6800 parallel

Note
(1) 0 is connected to VSS
(2) 1 is connected to VDD

Contour Drawing & Block Diagram

89.2±0.1 (CG)
(89.2 FR)
5.21
78.78 (CG VA)
6.21
76.78 (AA)
3.3 Max.
3.68±0.3
(2.65)
89.2±0.5(PCB)
83.2
3
17.47
P2.54*(24-1)=58.42
24-⌀1.0 PTH
24-⌀2.0 PAD

8.5
11.1
12.1
29±0.1 (CG)
(29 FR)
21.18 (CG VA)
19.18 (AA)

Active Area 3.12"
256*64 Pixels

Pull Tape

3
2.5
44±0.5(PCB)
38
1
24

Cover Glass
(t=0.7)

1 Component area

4-⌀2.5PTH
4-⌀4.0PAD

PIN	SYMBOL	PIN	SYMBOL
1	VSS	13	DB6
2	VDD	14	DB7
3	NC	15	NC
4	D/C#	16	RES#
5	R/W#(WR#)	17	CS#
6	E(/RD#)	18	NC
7	DB0	19	BS1
8	DB1	20	BS0
9	DB2	21	TP_SCK
10	DB3	22	TP_SDA
11	DB4	23	TP_INT
12	DB5	24	TP_RST

0.278
0.3
0.278
0.3
0.3

DOT SIZE
SCALE 20/1

256*64

COMA63
COMA0
SEG0
SEG255
COMB0
COMB63

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

Absolute Maximum Ratings

Parameter	Symbol	Min	Max	Unit
Supply Voltage for Display	VDD	-0.3	4	V
Operating Temperature	TOP	-20	70	°C
Storage Temperature	TSTG	-30	80	°C

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	—	0	—	0.2×VDD	V
High Level Output	VOH	—	0.9×VDD	—	VDD	V
Low Level Output	VOL	—	0	—	0.1×VDD	V
50% Check Board operating Current	IDD	VDD =3V	—	150	300	mA