SMART DISPLAY SPECIFICATION



WINSTAR Display Co.,Ltd.
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SPECIFICATION

MODEL NO. : WLEP02566400DGAAASA00-FC

Summary

SmartDisplay OLED 3.55" is an OLED type display with 256x64 resolution. Here are the summaries of the feature:

1. DC 5V working voltage.
2. Power-On Self-Test & Splash screen.
3. CAN bus Interface.
4. Supports CANopen protocol, default baud rate at 250KB.
5. Built in flash memory, store the font and Object Dictionary Data.
6. Supports PCAP touch screen.
7. Can Smart Display is defined as a slave device, which is controlled by master device via CAN bus command to render display content on the display screen and return touch event data with protocol objects.
8. Built-in Buzzer is controlled from master device.

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Product information

Mechanical Data

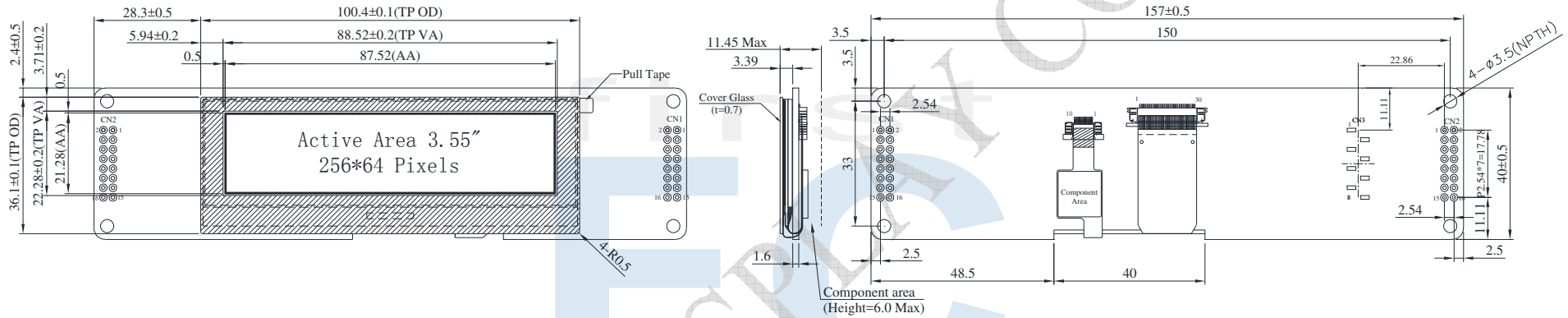
Item	Standard Value	Unit
OLED panel	100.4(W) x 36.1(H) x 3.39(D)	mm
PCB	157.0(W) x 40.0(H) x 1.6(D)	mm
Housing outline	157.0(W) x 40.0(H) x 11.45(D)	mm

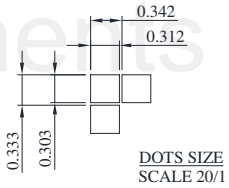
General information

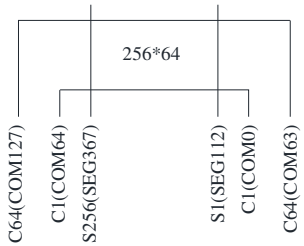
Item	Standard Value	Unit
Operating voltage	5	Vdc
Communication Interface	CAN bus differential ± 3.3	Vpp
MCU	STM32F750	NA
Flash Memory	16	MB
SDRAM Frequency	108	MHz
Size	3.55	inch
Dot Matrix	256 x 64	pixel
Module dimension	107(W)*68.7(H)*27(D)	mm
Active area	95.04 x 53.856	mm
Dot pitch	0.342 x 0.333	mm
LCD type	OLED, White color, Passive Matrix	
Drive Duty	1/64 Duty	
Gray Scale	4 bits	
With /Without TP	With CTP	
Surface	Glare	

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Contour Drawing







CN1

PIN	SYMBOL
1	+5V
2	DGND
3	GND
4	D-
5	CAN High
6	D+
7	CAN Low
8	+5V
9	GND
10	NC
11	GND
12	NC
13	NC
14	NC
15	NC
16	NC

CN2

PIN	SYMBOL
1	NC
2	VDD3V
3	NC
4	TAG_SWCLK
5	NC
6	GND
7	NC
8	TAG_SWDI
9	NC
10	NRST
11	NC
12	TAG_SWDO
13	DGND
14	DGND
15	+5V
16	NC

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Absolute Maximum Ratings

Item	Symbol	Min	Typ	Max	Unit
Operating Temperature	TOP	-20	–	+70	℃
Storage Temperature	TST	-30	–	+80	℃

Electrical Characteristics

Item	Symbol	Condition	Min	Typ	Max	Unit
Supply Voltage	+5V	–	4.4	5	5.6	V
Supply Product current	I (mA)	–	355	425	500	mA

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Interface

CN1 definition:

Pin	Symbol	Function	Remark
1	+5V	Power supply 5V input	Input
2	DGND	Reserved	Output
3	GND	Power supply GND input	Input
4	D-	Reserved	I/O
5	CAN High	CAN bus D+	I/O
6	D+	Reserved	I/O
7	CAN Low	CAN bus D-	I/O
8	+5V	Reserved	Output
9	DGND	Reserved	Output
10	NC	Reserved	
11	DGND	Reserved	Output
12	NC	Reserved	
13	NC	Reserved	
14	NC	Reserved	
15	NC	Reserved	
16	NC	Reserved	

CN2 definition:

Pin	Symbol	Function	Remark
1	NC	Reserved	
2	VDD3V		Input
3	NC	Reserved	
4	TAG_SWCLK		
5	NC	Reserved	
6	GND		
7	NC	Reserved	
8	TAG_SWDI		
9	NC	Reserved	
10	NRST		
11	NC	Reserved	
12	TAG_SWDO		
13	DGND		
14	DGND		
15	+5V		Input
16	NC	Reserved	

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Display Usage

Functional description

Smart Display can be used to display the coordinate, status and data information provided by the connected HOST device. Customers can configure the position coordinates they want to display in normal operation mode.

The Display is designed to be easily connected to a controller network, and to operate with minimum setup or knowledge of the SDO configuration on the controllers.

Splash Screen

The default splash image of OLED 3.55" is shown as below.



✓ This product is produced as a generic product. If you require a custom splash image for your application, contact us to discuss further.

Acquisition of Displayed Data

The Smart Display can acquire the data that it displays by using the CANopen SDO protocol.

On Pre-operational mode, customers can set the coordinates of objects through SDO; On operational mode, customers can send data of objects through SDO, please see below.

Configuring the Display

Winstar Smart Display CAN series offers an out-of-the-box CANopen development experience that will lower customers' development costs and speed time-to-market expectations.

The Smart Display can use wide-temperature are designed to support control applications in harsh operating conditions, which designed to be connected to a variety of different situation combinations, such as automotive, marine, power generation and oil-and-gas.

The Smart Display comes with standard UI objects to get customers project off the ground quickly. If customers need custom UI objects support, our engineers are here to help. Send over your contents in PNG/JPG format, we will send over a new set of UI objects within 3~5 working days.

The Smart Display is defined as a slave device, which is controlled by master device via CAN bus command to render display content on the display screen and return touch event data with protocol objects.

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Example Screen Layout (General application)

Example Layout

The screen layout described in this section is intended to demonstrate the settings of screen items that can be used in the general application.



0x2000 Toggle Button
0x2001 Animated Image
0x2002 Custom Widget
0x2003 Custom Widget
0x2004 Toggle Button

0x2005 Toggle Button
0x2006 Toggle Button
0x2007 Toggle Button
0x2008 Toggle Button
0x2009 Digital clock

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