#### June, 2016

## **Notification of Winstar Headquarters Relocation**

Dear Valued Customers.

We are pleased to inform you that Winstar Headquarters will be moving to the following new address effective from June 27, 2016. It is located in Central Taiwan Science Park.

Headquarters Address: 5F, No.31, Keya Rd., Daya Dist., Taichung City 428, Taiwan

Tel: +886-4-2568 9987 Fax: +886-4-2568 7763

Due to office relocation, our office will be closed from June 24, (Fri) to June 26, 2016 (Sun). Please update your Winstar contact information of mailing address, telephone number and fax number. Please note all staff extension number and e-mail address are all the same. We will continually provide our qualified service and products to our customers at the highest competent level. We look forward to your continued support. We will strive for providing the excellent service in appreciation of your support. Thank you for your kind attention!

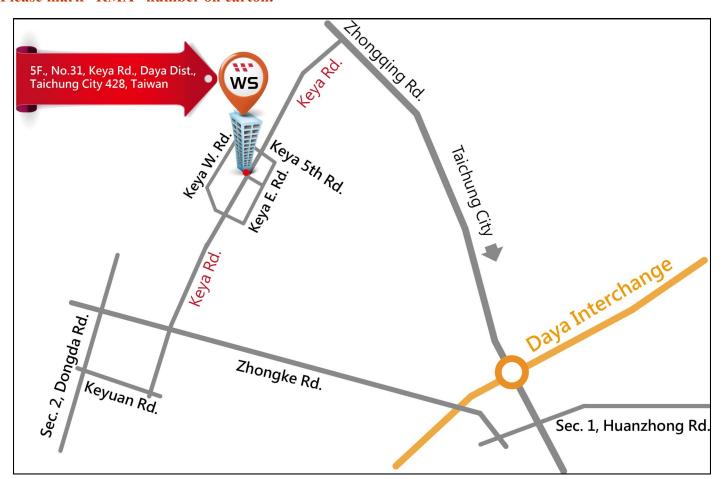
# **Shipping Address for RMA Return Goods to Taiwan**

Winstar RMA office will be located in another building in Central Taiwan Science Park. For RMA return goods, please contact with Winstar sales persons before shipping to receive a Return Material Authorization (RMA) number. The RMA goods, please send to the below address.

RMA Address: 4F, No.25, Keya Rd., Daya Dist., Taichung City 428, Taiwan

Recipient: please mark: "Winstar RMA Center"

Please mark "RMA" number on carton.





www.winstar.com.tw

# **Notification of Winstar Taipei Branch Office Relocation**

In order to provide better service to our customers in North Taiwan, Winstar Taipei branch office will move to Taipei World Trade Center (TWTC). Below is the new address and Telephone / Fax number of our Taipei Branch. Please note the RMA Goods still have to send to our RMA Center in Taichung City.

Taipei Branch Address: 6F.-6C15, No.5, Sec. 5, Xinyi Rd., Xinyi Dist., Taipei City 110, Taiwan

Tel: +886-2-2723-8289 Fax: +886-2-2720-1496

# **Shipping Arrangement before Stock-taking (2016 June)**

After Winstar Headquarters relocation, Winstar Display will have half yearly stock-taking in late of June for Taiwan and China plants. Please note that we will stop shipping and receiving shipment during this period. Below are the last shipping date before the inventory check and the first shipping date after the stocktaking for your reference. Please work with your Winstar sales persons closely before the stocktaking if your shipment might be affected. Thank you.

#### **Shipping from Taiwan**

► Last shipping date: June 22, 2016

► First shipping date: July 1, 2016

#### **Shipping from China**

► Last shipping date: June 22, 2016

► First shipping date: June 28, 2016



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#### New Website Launch Announcement

We are very excited to announce the launch of Winstar newly designed website. Visit us at our new web <a href="https://www.winstar.com.tw">www.winstar.com.tw</a>. The site's homepage features bright colors and an uncluttered design and easily accessible for all customers. Our goal is to make this new website faster, easier to navigate, and more user-friendly. One of the most noticeable changes is Winstar new site is a RWD website.

Responsive Web Design (RWD) is an approach of laying-out and coding a website such that the website provides an optimal viewing experience - ease of reading and navigation with a minimum of resizing, and scrolling - across a wide range of devices (from desktop computer monitors to tablet and cell phones). RWD websites are fluid, meaning the content moves freely across all screen resolutions and all devices.

Customers will find our site is divided into 8 main sections: Company, Products, Technology, News & Event, Video, Location, Login and Contact us. We use a client-centric layout so our customers could easily navigate our website and locate the information they need. We encourage you to visit and explore our new website so you can experience the user-friendly function of the site especially the Product Finder function.

- ▶ Product Finder: Customers can find a "Product Finder" ICON on top the website in each webpage and the advanced search column at bottom of each page. It is a user-friendly search function; customers can use any condition to search Winstar products by using "Product Finder" function.
- ▶ Login Service: This is a Customer Zone; we provide SPEC datasheet download service for our main distributors. This service will be effective from July. Please contact with your Winstar sales person for your login ID number and password.

#### Link to www. winstar.com.tw







# Winstar Bar TFT Introduction

Currently, the mainstream aspect ratio of the TFT LCD panel in the market is 4:3 or 16:9 aspect ratio. But for some applications, some sort of Bar Type shape of display panel would be better than the current mainstream 4:3 or 16:9. Winstar Display released a series of Bar Type TFT LCD display in a row. In this issue, we will introduce 5.2 inch WF52A (Winstar offer only), 3.9 inch WF39A and 4.6 inch WF46A. These bar type TFT displays are perfect for industrial equipment, automotive application, server system, POS system and advertising display. In order to meet with customers requirement especially for industrial applications, we develop more derivative solution from these Bar type TFT, e.g. with screw hole on module, with touch panel, high brightness, with controller board. Welcome to learn more for Winstar Bar TFT in the following content.

#### 5.2" Bar TFT WF52A v.s. 5.2" STN WG24064A

Winstar monochrome STN WG24064A is a very popular Bar Type display module for industrial applications. We developed our first Bar Type TFT WF52A for customers to upgrade their monochrome display to color TFT. Below is the pin definition comparison for WF52ATLBSDBN0 (with SSD1963 controller board) and WG24064A. They are pin-to-pin from pin 1 to pin 20. WG24064A is using A.K pin for backlight, WF52ATLBSDBN0 is using pin 21 and pin 22 for backlight. Therefore, it's very easy for customers to upgrade from monochrome STN to color TFT. The WF52ATLBSDBN0 is perfect for industrial equipment & automotive applications, server system, POS system and advertising display.



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NC(TP\_DIN)

NC(TP\_DOUT)

NC(TP\_IRQ) GND





WF52ATLB		WG24064A	
PINNO	SYMBOL	PIN NO	SYMBOL
1	FG	1	FG
2	GND	2	GND
3	VDD	3	VDD
4	BLE	4	VO
5	WR	5	WR
6	RD	6	RD
7	cs	7	CE
8	RS	8	C/D
9	NC	9	VEE
10	RESET	10	RESET
11	DB0	11	DB0
12	DB1	12	DB1
13	DB2	13	DB2
14	DB3	14	DB3
15	DB4	15	DB4
16	DB5	16	DB5
17	DB6	17	DB6
18	DB7	18	DB7
19	NC(TP_DCLK)	19	FS(6800/8080)
20	NC(TP_CS)	20	NC
21	VLED+		
22	VLED-		



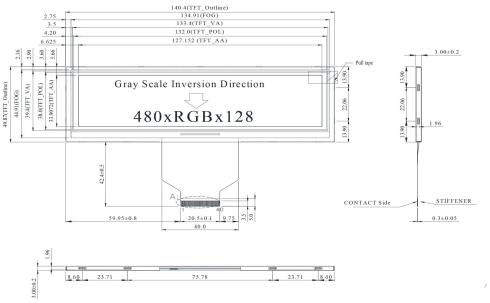
# **Product Introduction - 5.2" TFT WF52A (TFT Panel only)**

Winstar Display released a Bar type 5.2" TFT LCD display, it's a new size and resolution of TFT display. This new 5.2 inch TFT WF52A LCD display offers high quality and colorful image made of resolution 480x128 pixels; it is especially suitable for industrial equipment & automotive applications, server system, POS system, dynamic information displays and advertising display.

WF52ATLASDNN0 is having View Area dimension of 133.4 x 39.4 mm and Active Area of 127.152 x 33.9072 which is very close to our monochrome Graphic WG24064A; both diagonal sizes are 5.2 inch. WF52ATLASDNN0 is built in with ST7252 or equivalent driver IC, this type is having TFT panel only. It supports RGB 24 bits parallel interface SYNC mode. If customers need PCB with screw holes on module which is having same module dimension as WG24064A, you could choose our WF52ATLBSDBN0. More details, please refer to next introduction. This TFT LCD WF52A module can be operating at temperatures from -20°C to +70°C; its storage temperatures range from -30°C to +80°C. Below is the basic specification of WF52ATLASDNN0 as reference.

Item- WF52ATLASDNN0	Dimension	
Size	5.2 inch	
Dot Matrix	480 x RGBx128	
Module dimension	140.4 x 49.87 x 3.0 mm	
Active area	127.152 x 33.9072 mm	
Dot pitch	0.0883 x 0.2649 mm	
I CD tyma	TFT, Normally White, Trans-	
LCD type	missive	
View Direction	6 o'clock	
Gray Scale Inversion	12 o'clock	
Direction		
Backlight Type	LED, Normally White	
Driver IC	ST7252 Or Equal	
Interface	RGB 24bit	
Touch Panel	CTP ( Under development )	
High Brightness	Option	
Surface	Glare	





## **Product Introduction - 5.2" TFT WF52A with Controller Board**

WF52ATLBSDBN0 model is an upgrade solution for monochrome Graphic STN WG24064A COB module to colorful TFT display, both diagonal size are 5.2 inch. This STN WG24064A is having the resolution 240x64 pixels; the TFT WF52ATLBSDBN0 is having resolution 480x128 pixels which are with higher resolution and colorful images. Winstar developed this wholly new design WF52A with SSD1963 controller board on module to be a replacement of STN WG24064A.

Winstar TFT WF52ATLBSDBN0 is having module dimension of 180.0 x 65.0 mm which is the same as Winstar monochrome Graphic WG24064A. Therefore, the customers can upgrade the existing mono STN WG24064A to color TFT directly since we designed a Pin-to-Pin interface on WF52ATLBSDBN0 module.

WF52ATLBSDBN0 is built in with SSD1963 controller board on module. It supports 8080 family MPU 8bit and 16 bit parallel interface. There are two connection interface options; 26 pins 8 bits using pin header and 36 pins 8 bits/16 bits using ZIF connector. The LCM PIN Definition of CON1 is for those who used WG24064A version, it is pin-to-pin from pin 1 to pin 20. WG24064A is using A.K pin for backlight, WF52ATLBSDBN0 is using pin 21 and pin 22 for backlight. More details, please contact with our sales persons.

This TFT LCD WF52ATLBSDBN0 module can be operating at temperatures from -20°C to +70°C; its storage temperatures range from -30°C to +80°C. Below is the basic specification of WF52ATLBSDBN0 as reference.

Item- WF52ATLBSDBN0	Dimension	
Size	5.2 inch	
Dot Matrix	480 x RGBx128	
Module dimension	180.0 x 65.0 x 8.8 mm	
Active area	127.152 x 33.9072 mm	
Dot pitch	0.0883 x 0.2649 mm	
LCD type	TFT, Normally White, Transmissive	
View Direction	6 o'clock	
Gray Scale Inversion Direction	12 o'clock	
Backlight Type	LED, Normally White	
Driver IC	SSD1963	
Interface	Digital 8080 family MPU 8bit/16bit	
Touch Panel	CTP (Under development)	
High Brightness	Option	
Surface	Glare	



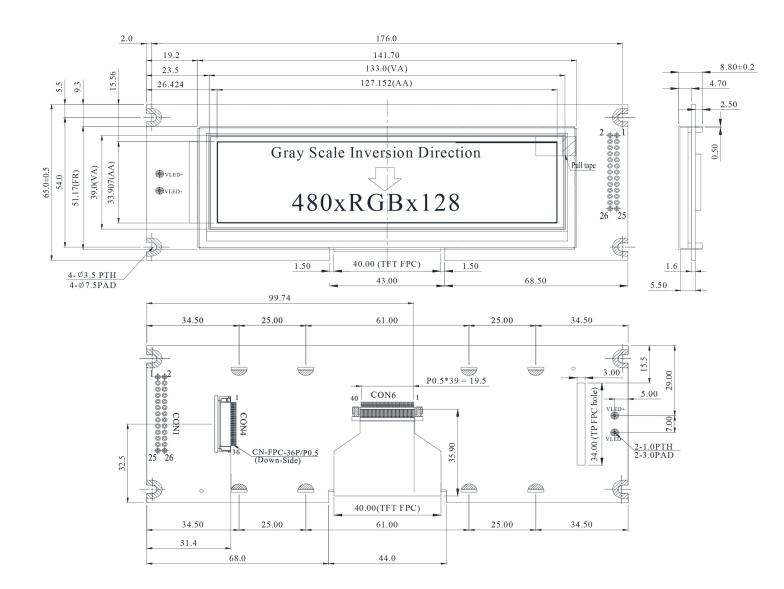


#### ► Link to Winstar WF52ATLBSDBN0 web page



# /VEWS

# **▶** WF52ATLBSDBN0 Contour Drawing



WF52ATLBSDBN0 supports 8080 family MPU 8bit and 16 bit parallel interface. There are two connection interface options. If customers would like to upgrade from WG24064A, please choose CON 1 interface; 26 pins 8 bits using pin header. If customers would like to use WF52A on a new project, please choose CON 4, it supports 8080 parallel interface, 36 pins 8 bits/16 bits using ZIF connector. For more details, please contact with our sales persons for full datasheet.

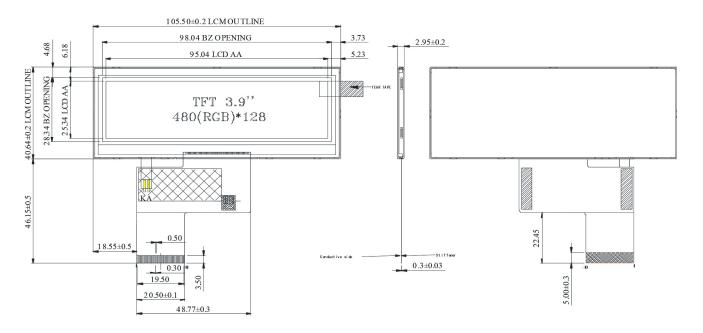
## Product Introduction - 3.9" TFT WF39A

WF39A is 480x128 dots 3.9 inch color TFT LCD display module which is having the module dimension of 105.5x40.64 mm and Active area size of 95.04x25.34 mm. WF39A TFT LCD display is without built in controller on module. WF39A supports RGB interface, 3.3V (typical) power supply, supports DE mode and Sync mode. It's View Angle (U/D/R/L) is:50/70/70/70 (typical); brightness is 500 cd/m2. This WF39A TFT module can be used in information display device, server system, audio system, industrial device, security equipment which requires display in high quality and colorful image.

WF39A TFT LCD module can be operating at temperatures from -20°C to +70°C; its storage temperatures range from -30°C to +80°C. Below is the basic specification of WF39A as reference.

tem-WF39A	Dimension
Size	3.9 inch
Dot Matrix	480 x RGBx128(TFT)
Module dimension	105.5 x 40.64 x 2.95 mm
Active area	95.04 x 25.34 mm
Dot pitch	0.066 x 0.198 mm
LCD type	TFT, Normally White, Transmissive
View Direction	12 o'clock
Gray Scale Inversion Direction	6 o'clock
Backlight Type	LED, Normally White
Touch Panel	TBD
Surface	Anti-Glare





## ► Link to Winstar WF39A web page

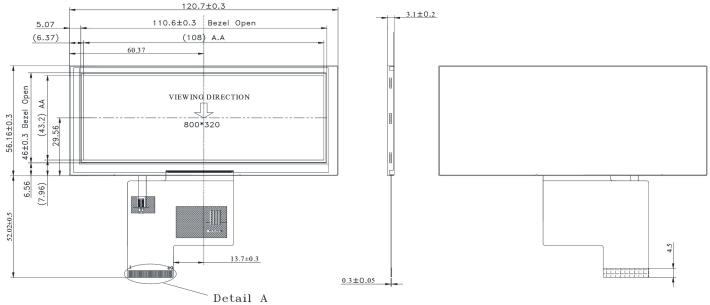
## **Product Introduction - 4.6" TFT WF46A**

Winstar WF46A is 4.6 inch color TFT LCD display module made of 800x320 dots pixel. WF46A model is having the module dimension of 120.7x56.16 mm and Active area size of 108x43.2 mm. This WF46A TFT LCD display is without built in controller on module. It supports RGB interface, 3.3V (typical) power supply, supports DE mode and Sync mode. It's View Angle (U/D/R/L) is 50/70/70/70 (typical); brightness is 350 cd/m2. This WF46A TFT module can be used in information display device, server system, audio system, industrial device, security equipment which requires display in high quality and colorful image.

WF46A TFT LCD module can be operating at temperatures from  $-20^{\circ}$ C to  $+70^{\circ}$ C; its storage temperatures range from  $-30^{\circ}$ C to  $+80^{\circ}$ C. Below is the basic specification of WF46A as reference.

Item-WF46A	Dimension
Size	4.6 inch
Dot Matrix	800 x RGBx320(TFT)
Module dimension	120.7 x 56.16 x 3.1 mm
Active area	108 x 43.2 mm
Dot pitch	0.045 x 0.135 mm
LCD type	TFT, Normally White, Transmissive
View Direction	12 o'clock
Gray Scale Inversion Direction	6 o'clock
Backlight Type	LED, Normally White
Touch Panel	TBD
Surface	Anti-Glare





#### ► Link to Winstar WF46A web page

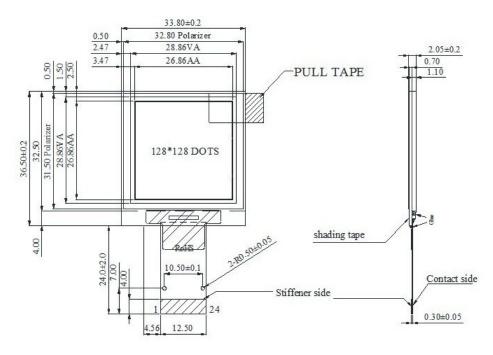
## **Product Introduction - 1.5" OLED WEO128128A**

Winstar WEO128128A is a passive matrix OLED display which is made of 128x128 pixels, diagonal size 1.5 inch. The WEO128128A has the outline dimension of 33.8 x 36.5 mm and AA size 26.86 x 26.83 mm; it is built in with SSD1327ZB controller IC and it communicates via 6800/8080 8-bit parallel, I2C and 4-wire SPI serial interface, 3V power supply. The WEO128128A is a COG structure OLED display which is ultra thin and no need of backlight (self emitting); it's lightweight and low power consumption. This OLED module is suitable for handheld instruments, meters, IoT, etc. The standard emitting color for this item is yellow, but options are available in white and sky blue.

WEO128128A module can be operating at temperatures from  $-40^{\circ}$ C to  $+80^{\circ}$ C; its storage temperatures range from  $-40^{\circ}$ C to  $+80^{\circ}$ C. Below is the basic specification of WEO128128A as reference. For any further information such as samples or quotation, please contact with our sales rep.

Item-WEO128128A	Dimension
Dot Matrix	128 x 128 Dots
Module dimension	33.8× 36.5 × 2.05 mm
Active Area	26.86×26.83 mm
Pixel Size	$0.185 \times 0.185 \text{ mm}$
Pixel Pitch	0.21 × 0.21 mm
Display Mode	Passive Matrix
Display Color	White/Yellow/Sky Blue
Drive Duty	1/128Duty
IC	SSD1327ZB
Interface	6800/8080/SPI/I2C





#### ► Link to Winstar WEO0128128A web page