

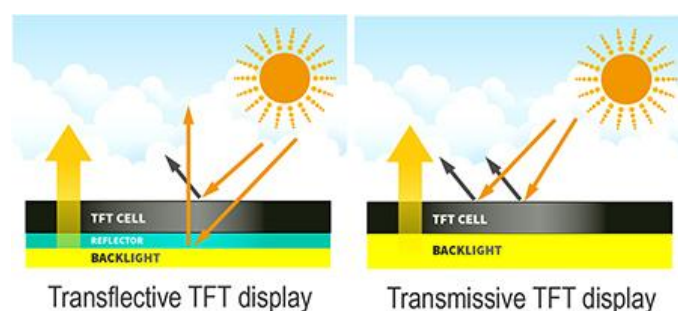
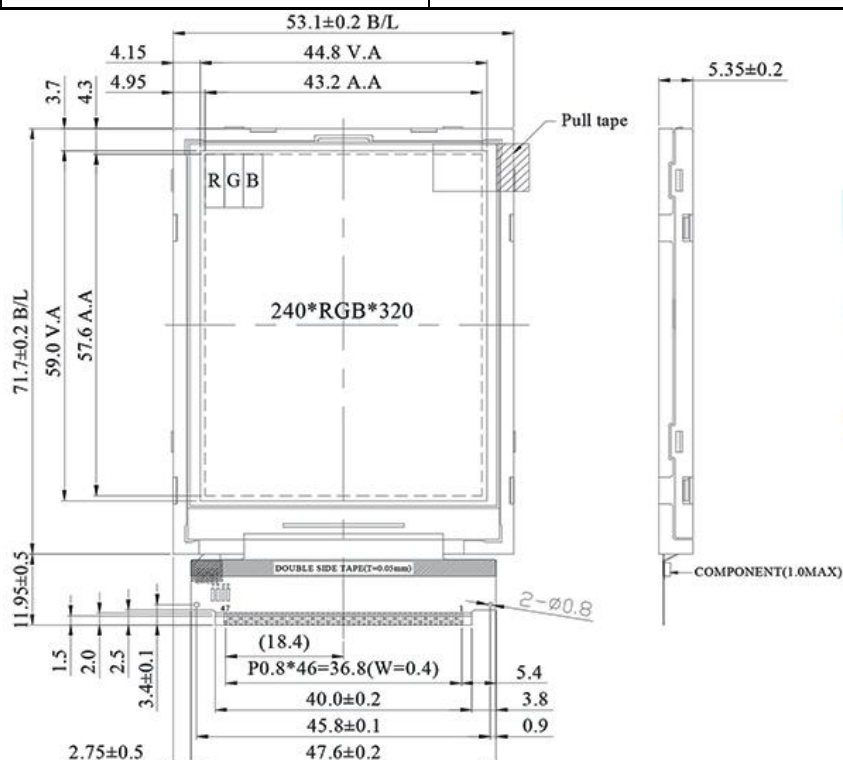
Nov, 2018

## 2.83 inch Transflective TFT-LCD WF0283ATDAJDNN0

WF0283ATDAJDNN0 is a 2.83 inch portrait mode Transflective TFT-LCD display module, made of resolution 240x320 pixels. WF0283A module built in with HX8367-A driver IC, it supports MCU/SPI/RGB interface; View Direction 3 o'clock, Gray Scale Inversion Direction 9 o'clock, Aspect Ratio 3:4, brightness 500 nits (typical value), Glare surface panel. This TFT module can be operating at temperatures from  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ ; its storage temperatures range from  $-30^{\circ}\text{C}$  to  $+80^{\circ}\text{C}$ .

WF0283A is a Transflective TFT-LCD display; it is characterized by very good readability in bright environments and direct sunlight. Transflective TFT display featured a transparent reflector in front of the backlight. The incoming light is reflected and used to illuminate the TFT display. Therefore, the readability of the content in very bright light is perfect even without any backlight. Customers using a transflective TFT module can save power by reducing or turning off the display's backlight during bright environments.

WF0283ATDAJDNN0	Dimension
Size	2.83 inch
Dot Matrix	240 x RGB x 320(TFT)
Module dimension	53.1(W) x 71.1(H) x 5.35 (D) mm
Active area	43.2 x 57.6 mm
Dot pitch	0.18 x 0.18 mm
LCD type	TFT, Normally White, Transflective
TFT Driver IC	HX8367-A or equivalent
TFT Interface	MCU/SPI/RGB
View Direction	3 o'clock
Gray Scale Inversion Direction	9 o'clock
Aspect Ratio	3:4
Backlight Type	LED, Normally White
Touch Panel	Without Touch Panel
Surface	Glare

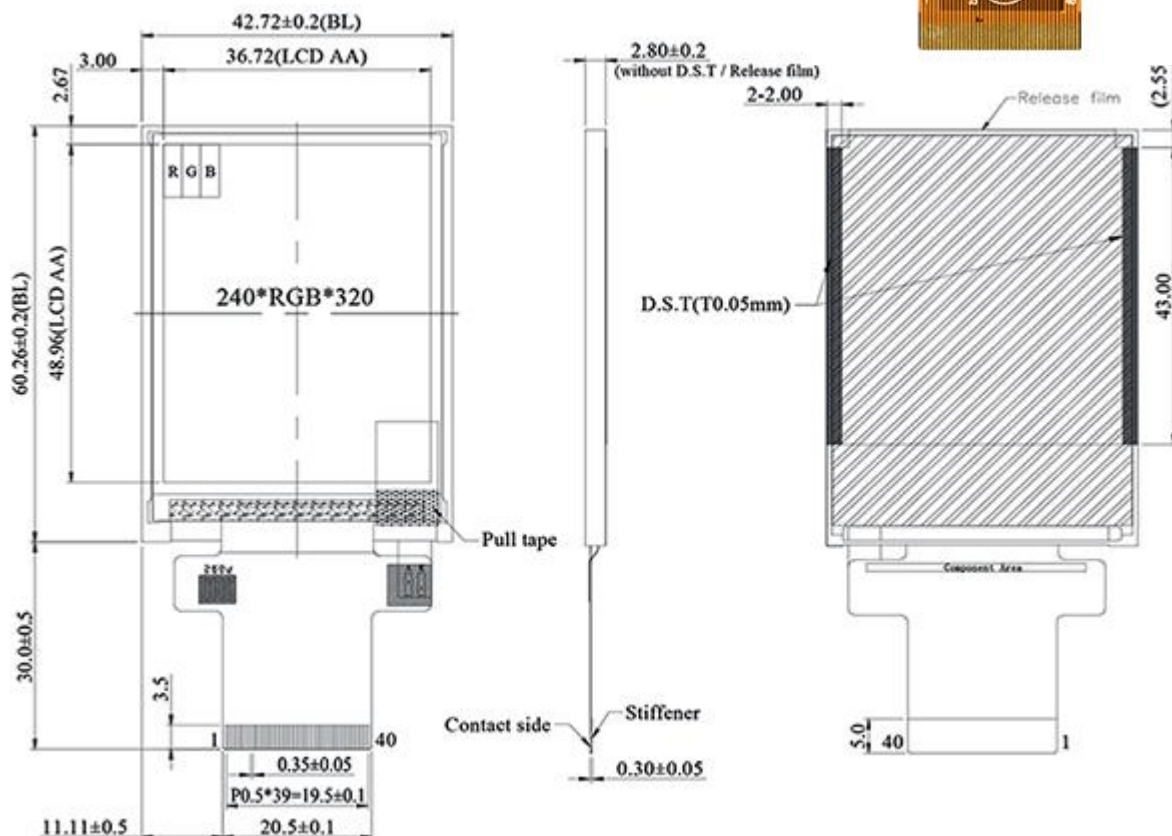


## 2.4 inch IPS Portrait Mode TFT WF24LTYAJDNN0

WF24LTYAJDNN0 is a 2.4 inch IPS TFT-LCD display module; made of resolution 240 x 320 pixels. WF24L module built in with ILI9341V controller IC, it supports MCU8080 and SPI interface, it featured with IPS panel which is having the advantages of wider viewing angle of Left:80 / Right:80 / Up:80 / Down:80 degree (typical), contrast ratio 800 (typical value), brightness 500 nits (typical value), Glare surface panel. WF24L is having Resistive Touch Panel (RTP) available for option.

This 2.4 inch TFT- LCD display is portrait mode; it integrated controller IC ILI9341V on module, Supply Voltage for Analog (VCI) from 2.5V to 3.3V. This TFT module can be operating at temperatures from  $-20^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$ ; its storage temperatures range from  $-30$  to  $+80^{\circ}\text{C}$ .

WF24LTYAJDNN0	Dimension
Size	2.4 inch
Dot Matrix	240 x RGB x 320(TFT) mm
Module dimension	42.72(W) x 60.26(H) x 2.8(D) mm
Active area	36.72 x 48.96 mm
Dot pitch	0.153 x 0.153 mm
LCD type	TFT, Normally Black, Transmissive
Controller IC	ILI9341V or equivalent
Viewing angle	80/80/80/80
Aspect Ratio	Portrait
Backlight Type	LED, Normally White
Touch Panel	Without Touch Panel
Surface	Glare



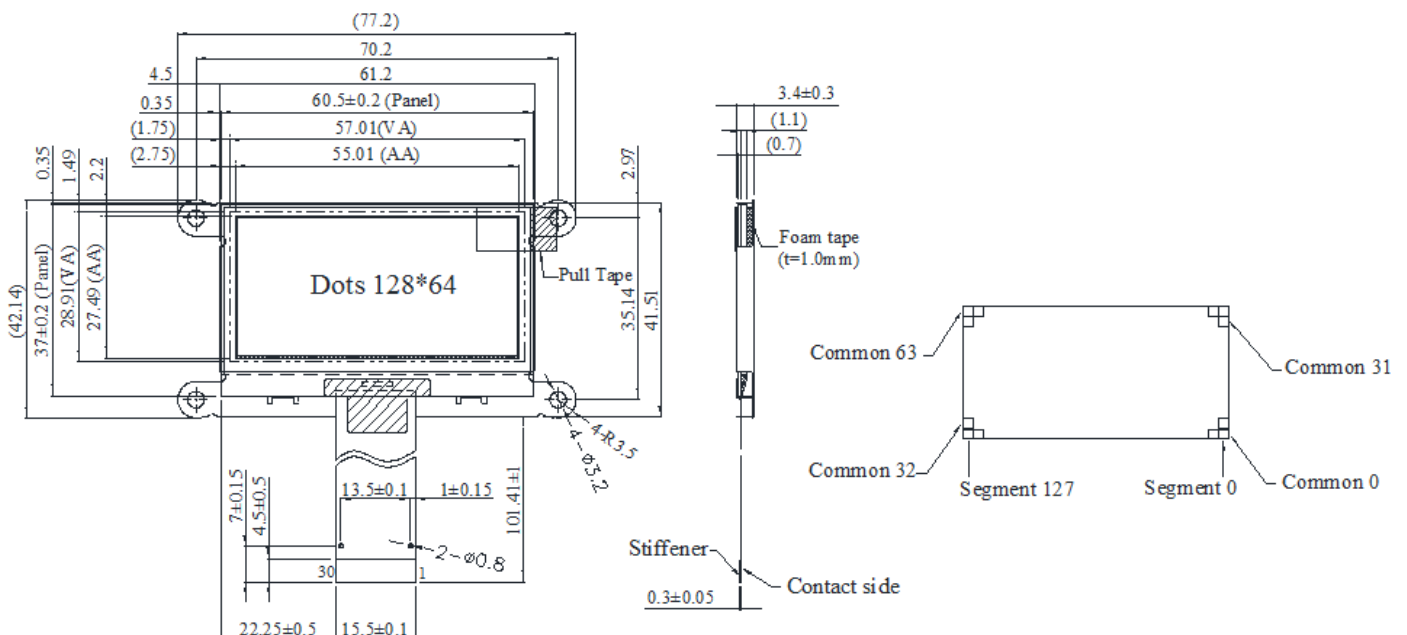
## 2.42 inch COG Graphic OLED WEF012864H

Winstar OLED WEF012864H is made of 128x64 pixels, diagonal size 2.42 inch. This graphic display is built-in SSD1309ZC controller IC and it communicates via 6800/8080 8-bit parallel, I2C and 4-wire serial interface. WEF012864H is having the same OLED panel as existing WEO012864G and featured with a bezel (frame) on module. WEF012864H is using a low resistance OLED Panel, and the FPC pin assignment has been defined as the same as WEF012864Q (30 pins).

WEF012864H is a COG structure OLED display; this OLED module is lightweight, low power and very thin, it is suitable for wall / meter devices, home applications, intelligent technology devices, energy systems, communication systems, medical instrument, etc. WEF012864H OLED module can be operating at temperatures from -40°C to +80°C; its storage temperatures range from -40°C to +85°C.

WEF012864HWPP3N00F00: White

WEF012864H	Dimension
Dot Matrix	128 x 64
Module dimension	77.2 × 42.14 × 3.4 mm
Active Area	55.01 × 27.49 mm
Pixel Size	0.40 × 0.40 mm
Pixel Pitch	0.43 × 0.43 mm
Display Mode	Passive Matrix
Display Color	Monochrome White
Drive Duty	1/64 Duty
IC	SSD1309ZC
Interface	6800,8080,SPI,I2C
Size	2.42 inch



## 0.91 inch OLED WEO012832D Thinner Version

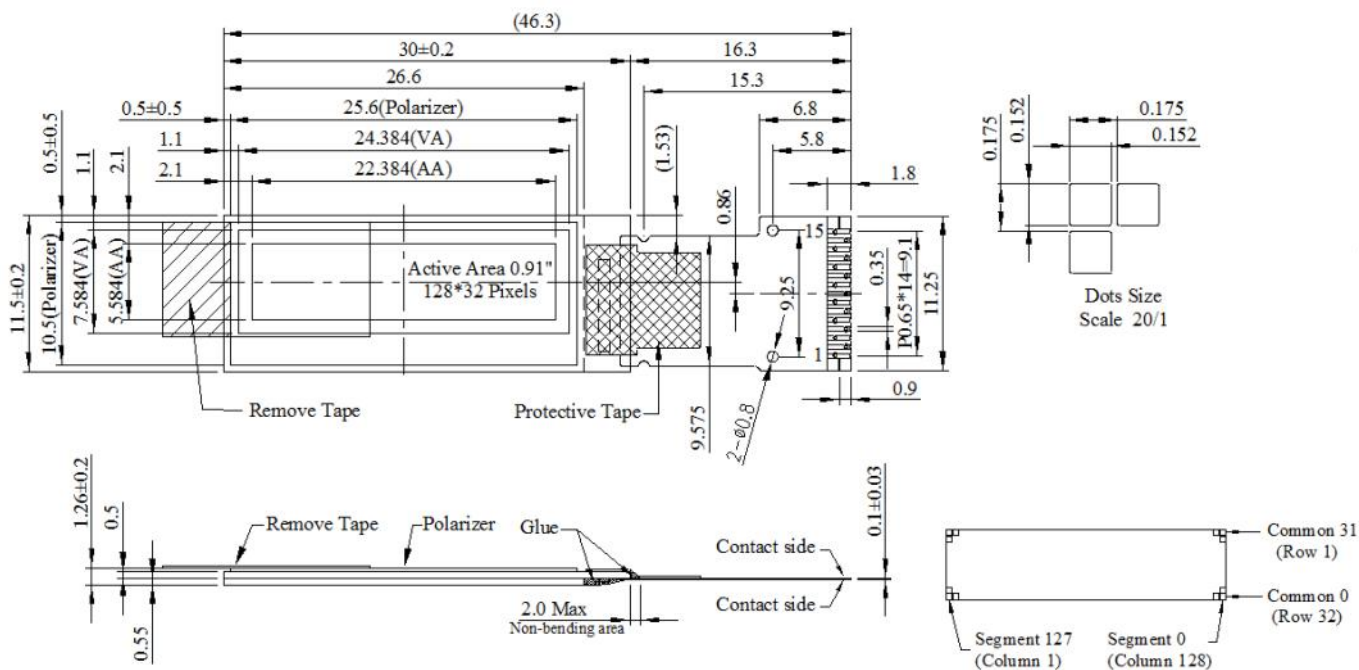
The 0.91 inch is one of the most popular sizes of COG OLED for wearable displays. Winstar released a thinner version of WEO012832D model which is made of 128x32 pixels. The outline dimension, active area, viewing area and electronic characteristics of the thinner version and the original WEO012832D are the same, the main difference is the module thickness, the new one is 1.26 mm on thickness as to the original one is 1.45 mm.

The new version thin 0.91" WEO012832D is also built-in SSD1306BZ driver IC; it communicates via 4-wire serial SPI interface only. WEO012832D OLED module can be operating at temperatures from -40°C to +80°C; its storage temperatures range from -40°C to +85°C. Adopting thinner OLED panel is a market trend; please adopt the thinner one for new design projects. If customers would like to use the new thinner one to replace the existing one, please contact Winstar sales reps for more details.

WEO012832DWPP3N00008 : White

WEO012832DLPP3N00004 : Yellow

WEO012832D-thinner version	Dimension
Dot Matrix	128 × 32 Dots
Module dimension	30.0 × 11.5 × 1.26 mm
Active Area	22.384 × 5.584 mm
Pixel Size	0.152 × 0.152 mm
Pixel Pitch	0.175 × 0.175 mm
Display Mode	Passive Matrix
Available Color	White and Yellow
Drive Duty	1/32 Duty
IC	SSD1306BZ
Interface	4-wire SPI
Size	0.91 inch





### 0.91 inch OLED WEO012832F Thinner Version

WEO012832F is a popular small OLED display which is made of 128x32 pixels, diagonal size 0.91 inch. We released a thinner version of WEO012832F which having the same outline dimension, active area, viewing area and electronic characteristics as the original one; the main difference between the thinner version and the original WEO012832F is the module thickness, the thinner one is 1.26 mm as to the original one is 1.45 mm. WEO012832F module is built in with SSD1306BZ controller IC; it supports I2C interface and having 14 pins FPC pinout.

WEO012832F is a COG structure OLED display, its controller is built-in voltage generation only need a single 3V power supply. This OLED I2C Display is lightweight, low power and small, this COG module is suitable for wall / meter devices, home applications, Cloud/IoT system, handheld instruments, intelligent technology devices, energy systems, automotive, communication systems, medical instrument, wearable device, etc. WEO012832F OLED module can be operating at temperatures from -40°C to +80°C; its storage temperatures range from -40°C to +85°C.

WEO012832FWPP3N00001: White

WEO012832FLPP3N00001: Yellow

WEO012832F-thinner version	Dimension
Dot Matrix	128 × 32 Dots
Module dimension	30.0 × 11.5 × 1.26 mm
Active Area	22.384 × 5.584 mm
Pixel Size	0.152 × 0.152 mm
Pixel Pitch	0.175 × 0.175 mm
Display Mode	Passive Matrix
Available Display Color	White and Yellow
Drive Duty	1/32 Duty
IC	SSD1306BZ
Interface	I2C
Size	0.91 inch

