WINSTAR NEWS www.winstar.com.tw

April, 2019

Exhibition News: DMEMS 2019 in CA USA

Winstar Display will present a full range of display technology highlights on its booth No.629 at the Del Mar Electronics & Manufacturing Show in San Diego, CA. This Expo will be held from May 1st to May 2nd, 2019 in Del Mar Fairgrounds. The booth will contain live demonstrations of our solution areas for TFT displays, OLED displays, LCD displays and Custom design solution. You are more than welcome to visit the Winstar booth at the DMEMS 2019 exhibition to learn more about the latest innovations on show and our wide range of alternative display solutions. Look forward to seeing you there on booth no. 629.

DMEMS, Del Mar Electronics & Manufacturing Show 2019

►Date : May 1st 2019 (10AM–5PM) to May 2nd 2019 (10AM–3PM)

►Location : Del Mar Fairgrounds, San Diego, CA, USA

►Booth No. #629

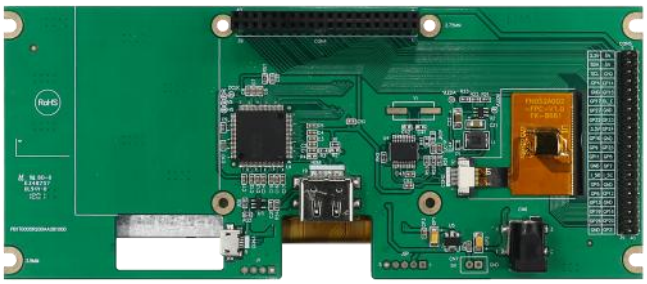
►http://www.manufacturing.show/

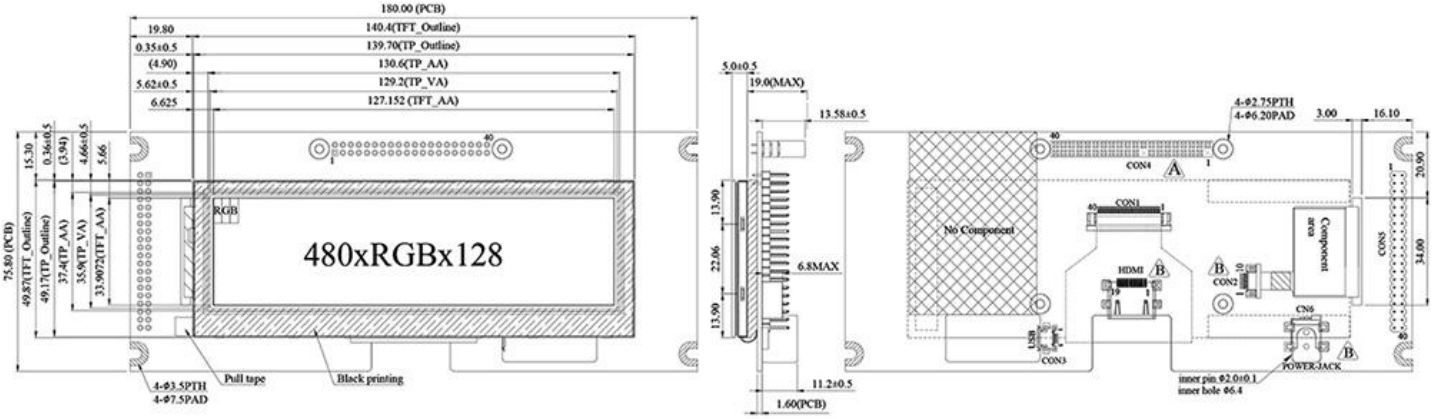
WF52ASZFSDHGV: 5.2” For HDMI Signal PCAP Bar TFT (For Raspberry PI Series)

WF52ASZFSDHGV is a 5.2” O-Film Bar Type TFT LCD module having resolution 480x128 with Projected Capacitive Touch Screen (PCAP); this TFT LCD with PCAP module only supports Raspberry Pi series. WF52ASZFSDHGV is built in with TFP401 Controller IC convert signal to support HDMI signal interface, as to the PCAP (CTP) IC is GT911, its I2C interface convert to USB; CTP firmware version 0x99. WF52A for Raspberry PI series is also available for Resistive Touch Screen (RTP) or without Touch Screen options. Please note WF52ASZFSDHGV is only working with Raspberry Pi1 ~ Pi3/Pi3B/Pi3B+. If the customer needs to use other Raspberry Pi version which is not mentioned in the above list. Please contact us for a special module part number.

The supply voltage for LCM (VDD) of WF52ASZFSDHGV is typical value 5V. It is featured with Glare surface panel and O-Film, View Direction 6 o'clock, Gray scale inversion 12 o'clock, brightness 600 ~700 nits. It can be operating at temperatures from -20 ℃ to +70 ℃ and storage temperatures from -30 ℃ to +80 ℃.

WF52ASZFSDHGV	Dimension
Size	5.2 inch
Dot Matrix	480 x 3(RGB) x 128
Module dimension	180.0 x 75.8 x 23.94 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
Aspect Ratio	Bar Type
Backlight Type	LED, Normally White
Controller IC	TFP401
Interface	Support HDMI Connector (Only DVI Signal)
Touch Panel	PCAP / RTP Option
CTP IC	GT911 or equivalent
CTP Interface	USB
CTP FW Version:	0x99
Surface	Glare





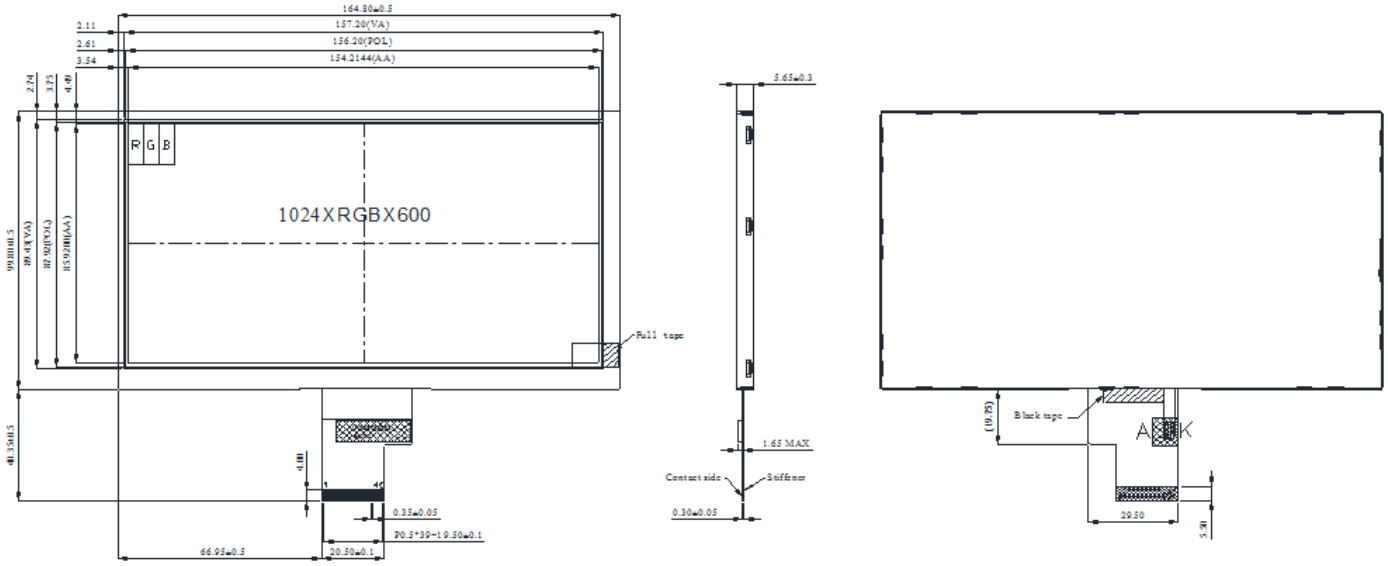
WINSTAR NEWS www.winstar.com.tw

7 inch LVDS TFT-LCD WF70A7TIAHLNN0

WF70A7TIAHLNN0 is a color TFT LCD with 1024x600 resolution, diagonal size 7 inch. This TFT LCD model is built in with EK79001HE and EK73215BCGA driver ICs. WF70A7TIAHLNN0 supports LVDS interface; it's available for Resistive Touch Screen (RTP) and Projected Capacitive Touch Screen (CTP) optional, as well as high brightness option. WF70A7TIAHLNN0 is an alternative item to replace WF70BTIAHLNN0 which adopted CPT (Chunghwa Picture Tubes Ltd) EOL TFT panel. Comparing WF70A7TIAHLNN0 and WF70BTIAHLNN0, the outline dimension, backlight, FPC pinout, interface, pin assignment, electrical characteristics and optical characteristics are all the same. The next page have the comparison info. as reference.

The power voltage (DVDD) of WF70A7TIAHLNN0 is from 3.0V to 3.6V, typical value 3.3V. It is featured with Anti-Glare surface panel, view direction 12 o'clock, gray scale inversion 6 o'clock, and aspect ratio 16:9, brightness 500 nits ~ 600 nits. It can be operating at temperatures from -20℃ to +70 ℃ and storage temperatures from -30℃ to +80 ℃.

WF70A7TIAHLNN0	Dimension
Size	7 inch
Dot Matrix	1024 x RGB x 600(TFT)
Module dimension	164.8(W) x 99.8(H) x 5.65(D) mm
Active area	154.2144 x 85.92 mm
Dot pitch	0.1506 x 0.1432 mm
LCD type	TFT, Normally White, Transmissive
View Direction	12 o'clock
Gray Scale Inversion Direction	6 o'clock
Aspect Ratio	16:09
Driver IC	EK79001HE+EK73215BCGA
Backlight Type	LED, Normally White
With /Without TP	Without TP
Interface	LVDS
Surface	Anti-Glare



Comparison of WF70A7TIAHLNN0 & WF70BTIAHLNN0

Below is the comparison of WF70A7TIAHLNN0 and WF70BTIAHLNN0 on electrical characteristics, optical characteristics and power on gray scale image as reference. Only the grayscale shade has a little variation, but it doesn't affect any function. Please check below for more details.

WF70A7TIAHLNN0 **WF70BTIAHLNN0**

1. Electrical Characteristics:

Typical Operation Conditions

Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	DVDD	3.0	3.3	3.6	V
	AVDD	9.4	9.6	9.8	V
	VGH	17	18	19	V
	VGL	-6.6	-6.0	-5.4	V
Input signal voltage	VCOM	3.1	3.3	3.6	V
Input logic high voltage	VIH	0.7 DVDD	-	DVDD	V
Input logic low voltage	VIL	0	-	0.3 DVDD	V

Typical Operation Conditions

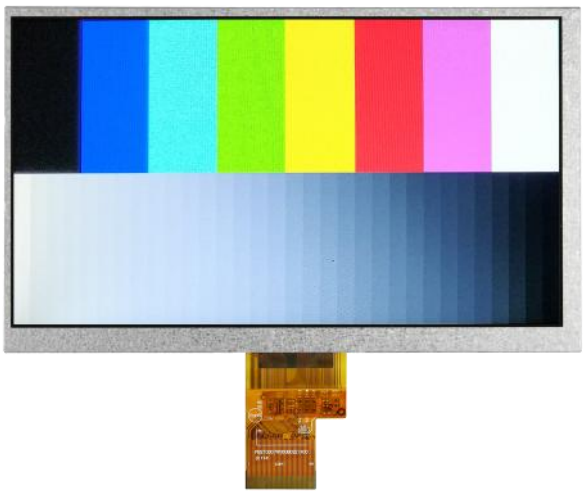
Item	Symbol	Values			Unit
		Min.	Typ.	Max.	
Power voltage	DVDD	3.0	3.3	3.6	V
	AVDD	9.4	9.6	9.8	V
	VGH	17	18	19	V
	VGL	-6.6	-6.0	-5.4	V
Input signal voltage	VCOM	3.1	3.3	3.6	V
Input logic high voltage	VIH	0.7 DVDD	-	DVDD	V
Input logic low voltage	VIL	0	-	0.3 DVDD	V

2. Optical Characteristics:

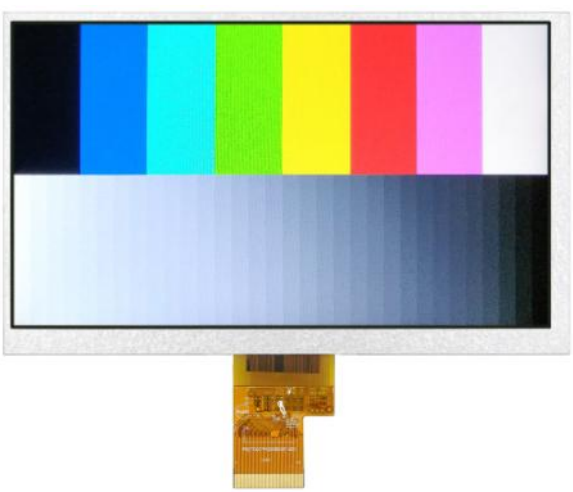
Item		Symbol	Condition.	Min	Typ.	Max.	Unit
Response time		Tr	θ=0°、Φ=0°	-	25	40	ms
		Tf					
Contrast ratio		CR	At optimized viewing angle	600	800	-	-
Color Chromaticity	White	Wx	θ=0°、Φ=0	0.26	0.31	0.36	-
		Wy		0.28	0.33	0.38	-
Viewing angle (Gray Scale Inversion Direction)	Hor.	ΘR	CR≧10	70	80	-	Deg.
		ΘL		70	80	-	
	Ver.	ΦT		50	60	-	
		ΦB		60	70	-	
Brightness		-	-	500	600	-	cd/m²
Uniformity		(U)	-	70	-	-	%

Item		Symbol	Condition.	Min	Typ.	Max.	Unit
Response time		Tr	θ=0°、Φ=0°	-	25	40	ms
		Tf					
Contrast ratio		CR	At optimized viewing angle	600	800	-	-
Color Chromaticity	White	Wx	θ=0°、Φ=0	0.26	0.31	0.36	-
		Wy		0.28	0.33	0.38	-
Viewing angle (Gray Scale Inversion Direction)	Hor.	ΘR	CR≧10	70	80	-	Deg.
		ΘL		70	80	-	
	Ver.	ΦT		50	60	-	
		ΦB		60	70	-	
Brightness		-	-	500	600	-	cd/m²
Uniformity		(U)	-	70	-	-	%

3. Gray Scale Image:



WF70A7TIAHLNN0



WF70BTIAHLNN0