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OEM Solutions

Custom Display

Mechanical design



Customer			
Keywords	16.4"TFT Display Module (1366 x 144)		
Model	ET164BA01-IL		
Customer Approval		YOURITECH Approval	
SIGNATURE PREPARED BY	TITLE DATE	SIGNATURE PREPARED BY	TITLE DATE
_____	_____	_____	_____
REVIEWED BY		REVIEWED BY	
_____	_____	_____	_____
APPROVED BY (R&D)		APPROVED BY (R&D)	
_____	_____	_____	_____
APPROVED BY (QA)		APPROVED BY (QA)	
_____	_____	_____	_____



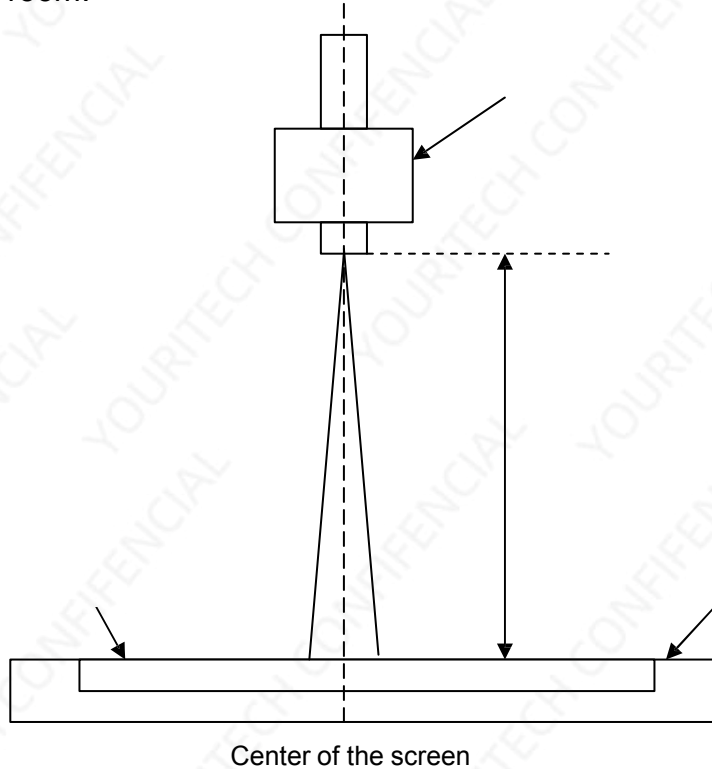
1. General Features

Items	Specification	Unit	Note
Active Screen Size	16.2	inches	
Display area	409.8x43.2	mm	
Outline Dimension	436.8(H) x 70.2(V) x 14(D)	mm	
Pixel Format	1366 x 144	Pixels	
Pixel Pitch	0.3 (H) x0.3 (W)	mm	
Color Depth	16777216	Color	8-bit
Viewing Angle	85/85/80/80 (R/L/ U/D)		CR>10
Luminance	500	cd/m ²	
Contrast Ratio	1000:1		
Backlight	WLED		
Power Consumption	12	Watt	
Life Time	50000	Hrs	
Operating Temperature	0 - 50	°C	
Storage Temperature	-20 - 60	°C	
Operating Humidity	10 - 90	%RH	
Storage Humidity	10 - 90	%RH	



Note 1: Measurement method

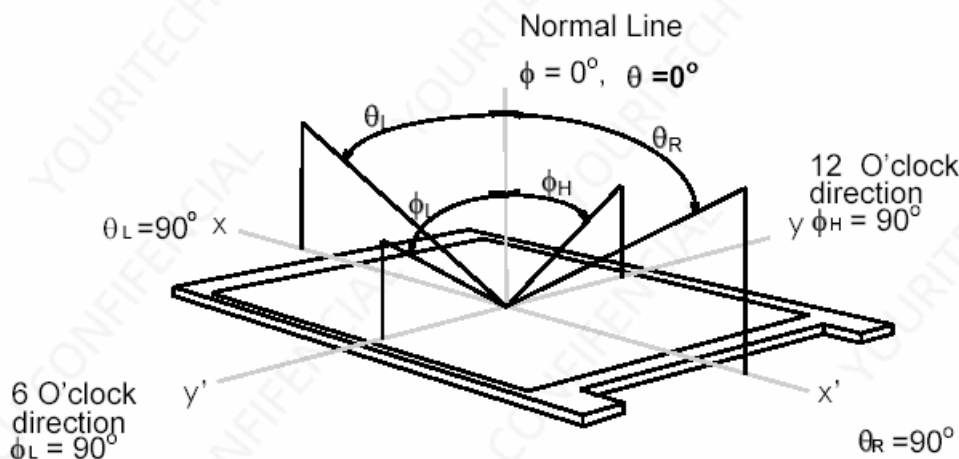
The LCD module should be stabilized at given temperature for 30 minutes to avoid abrupt temperature change during measuring (at surface 35rJ). In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 30 minutes in a stable, windless and dark room.



Note 2: Definition of viewing angle measured by ELDIM (EZContrast 88)

Viewing angle is the measurement of contrast ratio ≥ 10 , at the screen center, over a 180°

horizontal and 180° vertical range (off-normal viewing angles). The 180° viewing angle range is broken down as follows; 90° (θ) horizontal left and right and 90° (ϕ) vertical, high (up) and low (down). The measurement direction is typically perpendicular to the display surface with the screen rotated about its center to develop the desired measurement viewing angle.

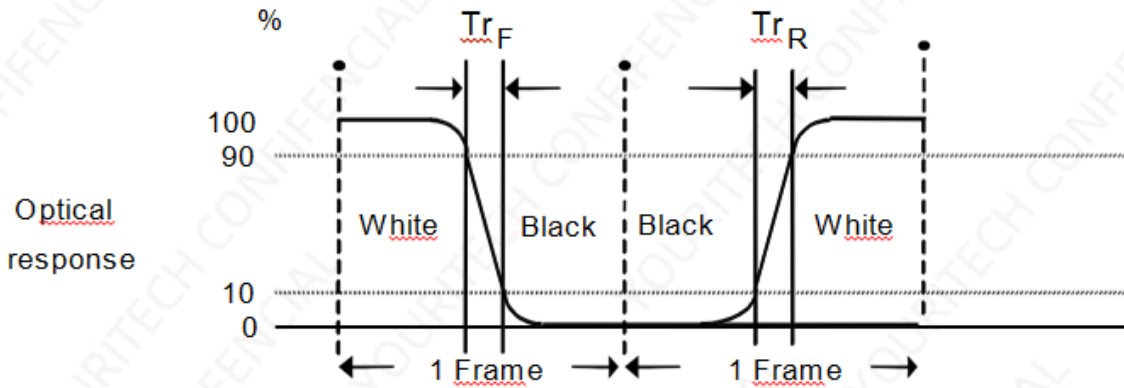


Note 3: Contrast ratio is measured by TOPCON SR-3



Note 4: Definition of Response time measured by Westar TRD-100A

The output signals of photo detector are measured when the input signals are changed from “Full Black” to “Full White” (rising time, Tr_R), and from “Full White” to “Full Black” (falling time, Tf_F), respectively. The response time is interval between the 10% and 90% (1 frame at 60 Hz) of amplitudes.



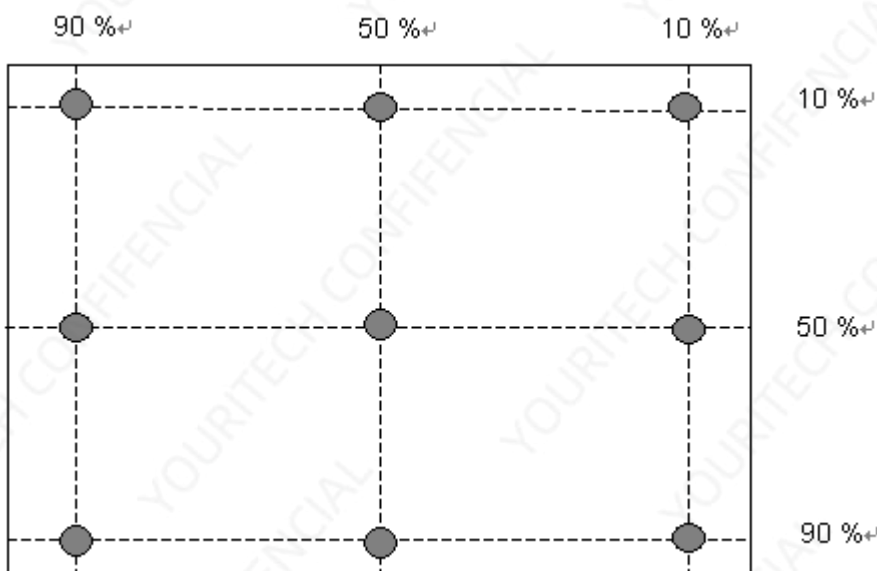
$$Tr_R + Tf_F = 5 \text{ msec (typ.)}$$

Algorithm: | Gray Level A – Gray Level B | rJ16, then the average gray to gray response time is 2 ms, (F= 60 Hz).

Note 5: Color chromaticity and coordinates (CIE) is measured by TOPCON SR-3

Note 6: Central luminance is measured by TOPCON SR-3

Note 7: Luminance uniformity of these 9 points is defined as below and measured by TOPCON SR-3



$$\text{Uniformity} = \frac{\text{Minimum Luminance in 9 points (1-9)}}{\text{Maximum Luminance in 9 Points (1-9)}}$$



2. Connector

2.1 Input Signal & Power Connector : AL230F-A0GAD-P.

PIN	Symbol	Description
1	NC	No contact (For AUO internal use)
2	NC	No contact (For AUO internal use)
3	NC	No contact (For AUO internal use)
4	GND	Power Ground
5	RXIN0-	Negative LVDS differential data input (0)
6	RXIN0+	Positive LVDS differential data input (0)
7	GND	Power Ground
8	RXIN1-	Negative LVDS differential data input (1)
9	RXIN1+	Positive LVDS differential data input (1)
10	GND	Power Ground
11	RXIN2-	Negative LVDS differential data input (2)
12	RXIN2+	Positive LVDS differential data input (2)
13	GND	Power Ground
14	RXCLKIN-	Negative LVDS differential clock input (clock)
15	RXCLKIN+	Positive LVDS differential data input (clock)
16	GND	Power Ground
17	RXIN3-	Negative LVDS differential data input (3)
18	RXIN3+	Positive LVDS differential data input (3)
19	GND	Power Ground
20	NC	No contact (For AUO internal use)
21	NC	No contact (For AUO internal use)
22	NC	No contact (For AUO internal use)
23	GND	Power Ground
24	GND	Power Ground
25	GND	Power Ground
26	VDD	+5V power supply
27	VDD	+5V power supply
28	VDD	+5V power supply
29	VDD	+5V power supply
30	VDD	+5V power supply

Notes : Input Level of LVDS signal is based on the IEA 664 Standard.



2.2 Backlight Connector:

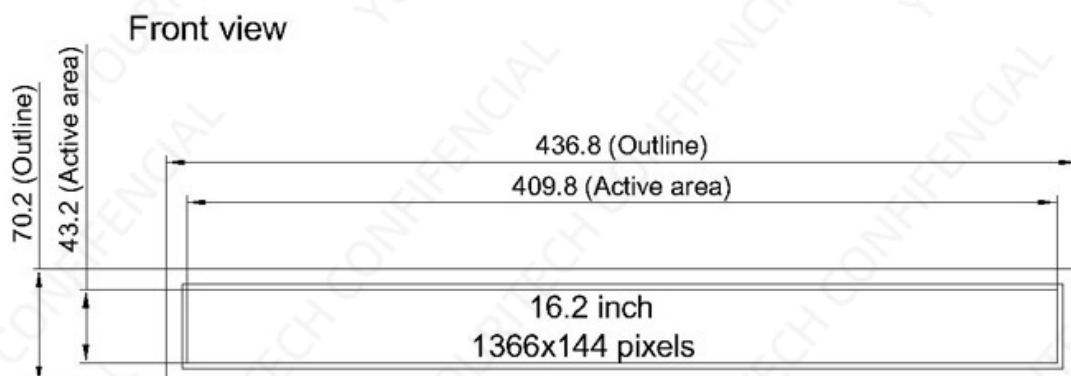
PH2.0-6pin

Pin No.	Symbol	Description	note
1	VCC	Power supply voltage 12v	
2	VCC	Power supply voltage 12v	
3	ON/OFF	Output enable signal input 0~5V	
4	DIM	Dim signal input DC 0~5V	
5	GND	Power ground	
6	GND	Power ground	

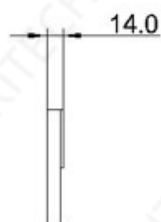


3. Mechanical Characteristics

Unit:mm



Side view



Back view

