
Product Specification

PCBA-ZY08015

7"CTP TFT-LCD controller with HDMI/VGA Input

Version 0.1

2024.12.05

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1. Revision History

Date	Rev.No.	Description	Page
2024/12/05	0.1	First release	All

2. Description

ZY08015C1024600-01 is a TFT dot matrix LCD module. It is composed of a PCBA, color TFT LCD panel, Source and Gate driver IC, FPC, CTP and a backlight unit. The module display area contains 1024x600 pixels. ZY08015C1024600-01 is focused on the essential: one panel - and two input type. Chipset brand: Realtek

3. LCM Parameter

Item	Contents	Unit	Notes
LCD Type	TFT Transmissive	/	/
Viewing Direction	Full View	O' Clock	/
PCBA Dimension	164.9(W) x 124.6(H)	mm	/
LCM Dimension	165(W) x 100 (H)	mm	/
Active Area (W x H)	154.21(W) x 85.92(H)	mm	/
Number of Dots	1024 x 600	Pixels	/
Touch Type	G+G Capacitive touch panel	/	/
Backlight Type	6x3=18 LEDS / White	/	Vbl=9.6V
Backlight Luminance	200	cd/m2	/
Interface	HDMI/VGA	/	
Input Voltage	5	V	

4. Electrical Characteristics

Item	Min.	Typical	Max.	Unit	Notes
Operating Voltage	4.5	5.0	5.5	V	VDD
Operating Current(Board Only)	---	140	---	mA	5V Power
Operating Temperature	-10	25	60	°C	/
Storage Temperature	-20	25	80	°C	/

5.Backlight Characteristics

Condition: Constant Current Driving Method (If=20mA(+/-10%)

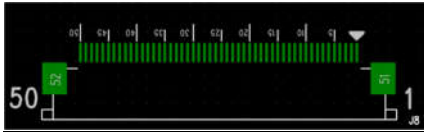
Item	Symbol	Min.	Typ.	Max	Unit	Condition
Forward Voltage	Vf	9.0	9.6	9.8	V	If=120mA
Luminance with LCD	Lv	--	200	--	cd/m2	/
Number of LED	/	6x3= 18			Pcs	/
Connection mode	S	3 Serial 6 Parallel			/	/

6. Connectors

6.1 Connector Overview

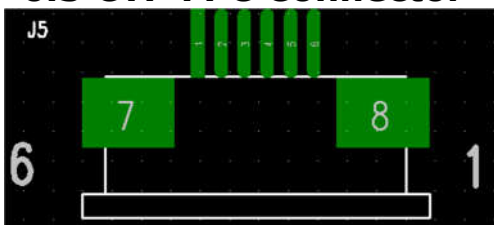
CN	DESCRIPTION	TYPE	MANUFACTURER
J8	7" RGB Panel Connector	50PIN 0.5mm pitch	HYS
J1	Power Input Connector	TYPE-C USB Connector	HYS
J3	USB Touch Connector	TYPE-C USB Connector	HYS
J13	HDMI Input Connector	HYSHA01-N1XX-X1-1	HYS
J5	TP Connector	6PIN 1.0mm pitch	HYS
J4	VGA Input Connector	DSUB15PRF-5	HYS

6.2 LCD Panel FPC Connector – J8



Pin No	Symbol	Function
1,2	VLED+	LED backlight (Anode)
3,4	VLED-	LED backlight (Cathode)
5	GND	Ground
6	VCOM	Common Voltage
7	DVDD	Digital Power
8	MODE	DE/SYNC mode select. Normally pull high H: DE mode. L: HSD/VSD mode
9	DE	Data Enable signal.
10	VSD	Vertical sync input. Negative polarity
11	HSD	Horizontal sync input. Negative polarity
12-19	B7-B0	Blue data input
20-27	G7-G0	Green Data
28-35	R7-R0	Red Data
36	GND	Ground
37	PCLK	Clock for Input Data.
38	GND	Ground
39	SHLR	Left or Right Display Control
40	UPDN	Up / Down Display Control
41	VDDG	Positive Power for TFT
42	VEEG	Negative Power for TFT.
43	AVDD	Analog Power
44	RSTB	Global reset pin. Active low to enter reset state.
45	NC	No Connection.
46	VCOM	Common Voltage
47	DITH	Dithering setting
48	GND	Ground
49	NC	No Connection.
50	NC	No Connection.

6.3 CTP FPC Connector –J5



Pin No	Symbol	Function
1	GND	Ground
2	CTP_SDA	I2C_SDA
3	CTP_SCL	I2C_SCL
4	CTP_RST	Reset Signal

5	CTP_INT	Interrupt
6	VDD	Power Supply +3.3V

6.4 Type-C USB for CTP –J3

Pin	Signal	Description
A4/A9	VDD	DC 5V Input
A7/B7	DN	USB DATA-
A6/B6	DP	USB DATA+
A1/A12	GND	Ground Shield

6.5 Type-C USB for Power supply –J1

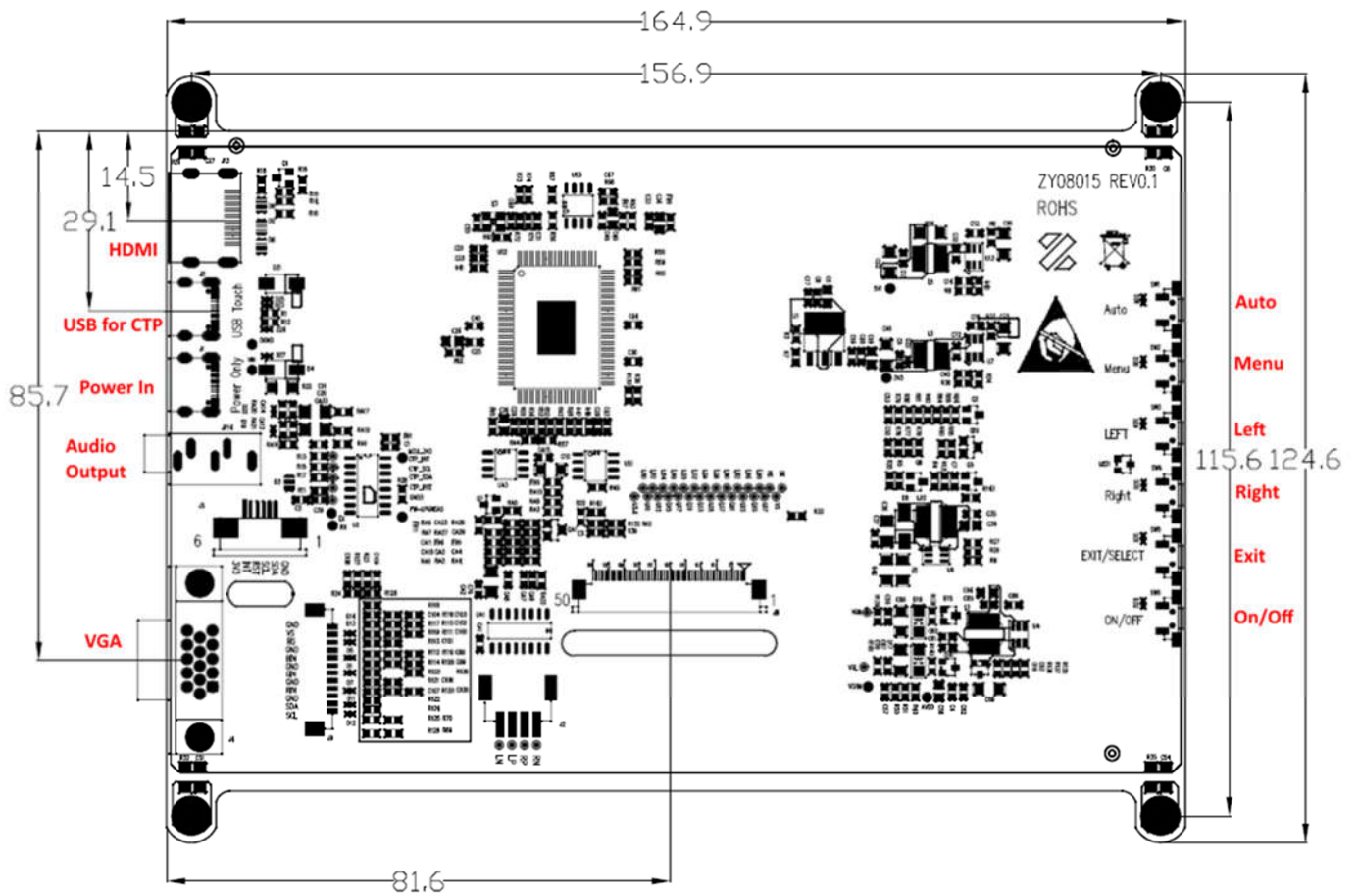
Pin	Signal	Description
A4/A9	VDD	DC 5V Input
A7/B7	NC	NC
A6/B6	NC	NC
A1/A12	GND	Ground Shield

6.6 HDMI Input – J13

Pin	Signal	Description
1	HDMI_RX2+_IN	Differential TMDS Data 2+
2	GND	Ground
3	HDMI_RX2-_IN	Differential TMDS Data 2-
4	HDMI_RX1+_IN	Differential TMDS Data 1+
5	GND	Ground
6	HDMI_RX1-_IN	Differential TMDS Data 1-
7	HDMI_RX0+_IN	Differential TMDS Data 0+
8	GND	Ground
9	HDMI_RX0-_IN	Differential TMDS Data 0-

Pin	Signal	Description
10	HDMI_RXC+_IN	Differential TMDS Clock+
11	GND	Ground
12	HDMI_RXC-_IN	Differential TMDS Clock-
13,14	NC	No Connection
15	HDMI_SCL	DDC Clock
16	HDMI_SDA	DDC Data
17	GND	Ground
18	HDMI_VCC	+5V
19	HDMI_HP	Hot Plug Detection

7. Mechanical Dimensions



Item	Description	Remarks
Length	164.9 mm	± 0.2 mm
Width	124.6mm	± 0.2 mm