




ELECROW ESP32 Terminal with 3.5inch RGB Capacitive Touch Display User Manual

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**ESP32 Terminal with 3.5inch RGB
Capacitive Touch Display
User Manual**

Thank you for purchasing our product.
Please read this user manual carefully before use and keep it properly for future reference.

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IMPORTANT SAFETY WARNING!

- This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved.
- Children shall not play with the appliance.
- Cleaning and user maintenance shall not be made by children without supervision.
- **WARNING:** Use the detachable supply unit provided with this appliance only.



Information on the disposal for Waste Electrical & Electronic Equipment (WEEE). This symbol on the products and accompanying documents means that used electrical and electronic products should not be mixed with general household waste. For proper disposal for treatment, recovery and recycling, please take these products to designated collection points where they will be accepted on a free of charge basis. In some countries you may be able to return your products to your local retailer upon the purchase of a new product. Disposing of this product correctly will help you save valuable resources and prevent any possible effects on human health and the environment, which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest collection point for WEEE.

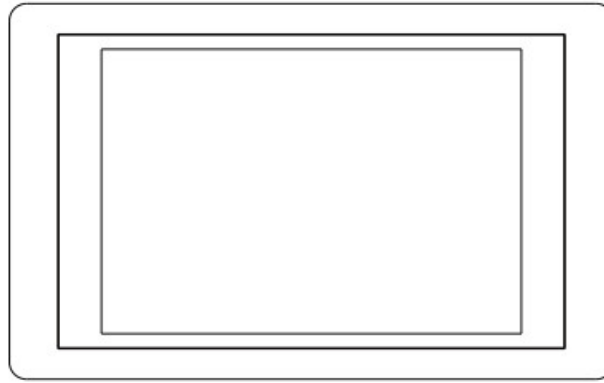
Specification

Main Chip	Core Processor	Xtensa® 32-bit LX7
	Memory	16MB Flash 8MB PSRAM
	Maximum Speed	240Mhz
	Wi-Fi	802.11 a/b/g/n 1x1, 2.4 GHz band supports 20 and 40 MHz bandwidth, Supports Station, SoftAP, and SoftAP + Station mixed modes.
	Bluetooth	BLE 5.0
LCD Screen	Resolution	480x320
	Display Size	3.5 inch
	Drive IC	1119488
	Touch	Capacitive Touch
Other Modules	SD Card	Onboard SD Card Slot
Interface	1 x USB C	
	1x UART	
	1x IIC	
	1x Analog	
	1x Digital	
Button	RESET Button	Press this button to reset the system.
	BOOT Button	Hold down the Boot button and press the reset button to initiate firmware download mode. Users can download firmware through the serial port.
Operating Environment	Operating Voltage	USB DC5V, lithium battery 3.7V
	Operating Current	Average current 83mA
	Operating Temperature	-10℃ – 65℃
Active Area	73.63(1)•49.79mm(W)	
Dimension Size	106(14x66mm(W)•13mm(H)	

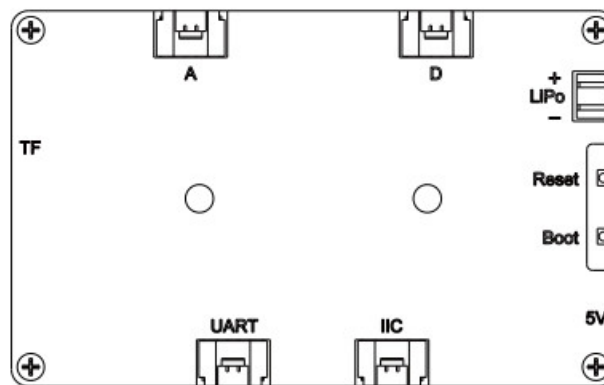
Part List

- 1x 3.5 inch RGB Display (included Acrylic Shell)
- 1x USB C Cable

Font

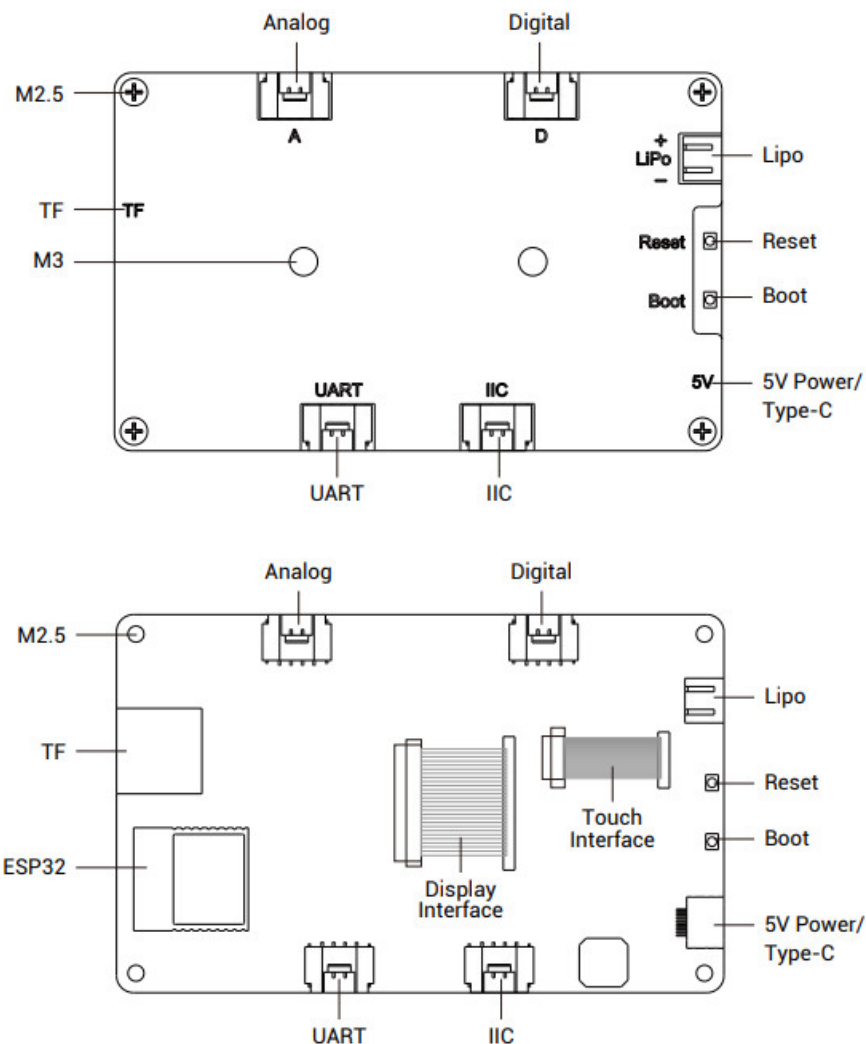


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Hardware and Interface

Hardware Overview



Hardware Overview

- **RESET button.**

Press this button to reset the system.

- **LiPo port.**

Lithium battery charging interface (lithium battery not included)

- **BOOT button.**

Hold down the Boot button and press the RESET button to initiate firmware download mode. Users can download firmware through the serial port

- **5V Power/Type C interface.**

It serves as the power supply for the development board and the communication interface between the PC and ESP-WROOM-32.

- **4 Crowtail interfaces (1*Analog,1*Digital,1*UART,1*IIC).**

Users can program the ESP32-S3 to communicate with peripherals connected to the Crowtail interface.

Schematic Diagram of IO Port

	GND	ESP32 S3	GND	
	3V3		101	SPI CS
RESEMP_RESEF	EN \ RST		102	SPIJAOSI
DB15	104		TXDO	UARTO TX
DB14	105		RXDO	UARTO RX
DB13	106		1042	SPI SCLIC
DB12	107		1041	SPIJAISO
DB11	1015		1040	D
DB10	1016		1039	IIC SCL
Battery_Volue1/2	1017		1038	IIC SDA
WR	1018		NC	
DB9	108		NC	
A	1019		NC	
BUZZER	1020		100	TPJNT
DB8	103		1045	RS
LCD_BACK	1046		1048	RD
DB7	109		1047	DBO
DB6	1010		1021	D81
DB5	1011		1014	DB2
DB4	1012		1013	DB3

Expansion Resources

For more detailed information, please scan the QR code to the URL:

https://www.elecrow.com/wiki/CrowPanel_ESP32_HMI_Wiki_Content.html




- Schematic Diagram
- Source Code
- ESP32 Series Datasheet
- Arduino Libraries
- 16 Learning Lessons for LVGL

Contact Technical Support



Documents / Resources

	<p>ELECROW ESP32 Terminal with 3.5inch RGB Capacitive Touch Display [pdf] User Manual 20240521, ESP32 Terminal with 3.5inch RGB Capacitive Touch Display, ESP32, Terminal with 3.5inch RGB Capacitive Touch Display, with 3.5inch RGB Capacitive Touch Display, 3.5inch RGB Capacitive Touch Display, RGB Capacitive Touch Display, Touch Display, Display</p>
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References

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