



## ESP32-S3 HMI AI Display CrowPanel Advance Series



### User Manual

Please read this user manual carefully before use and keep it properly for future reference.

# Package List

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The following list diagram is for reference only. Please refer to the actual product inside the package for details.



1 x ESP32-S3 HMI AI Display



1 x User Manual



1 x USB-A to USB-C Cable



1 x Crowtail/Grove to 4pin  
DuPont Cable



2 x Acrylic Case  
(Only the shelled version includes it)



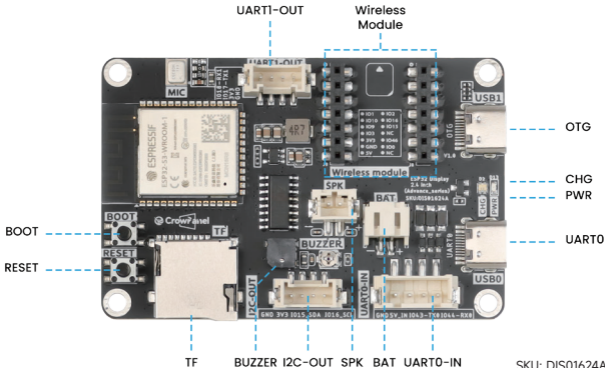
1x screwdriver&4x screw  
(Only the shelled version includes it)



1 x (Optional) (Optional) Wireless Module-ESP32-H2/  
Wireless Module-ESP32-C6/Wireless Module-nRF2401

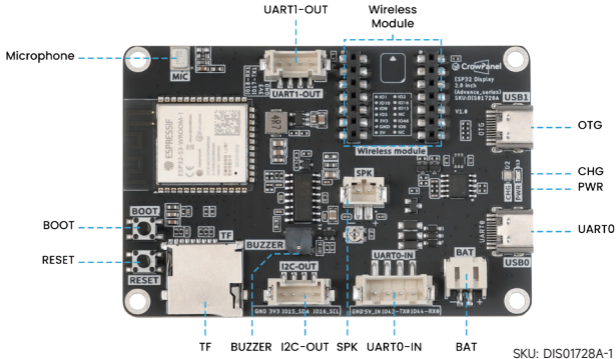
## 2.4 Inch HMI Display Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



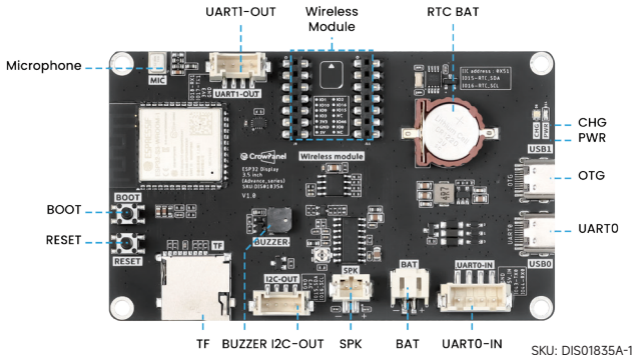
## 2.8 Inch HMI Display Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



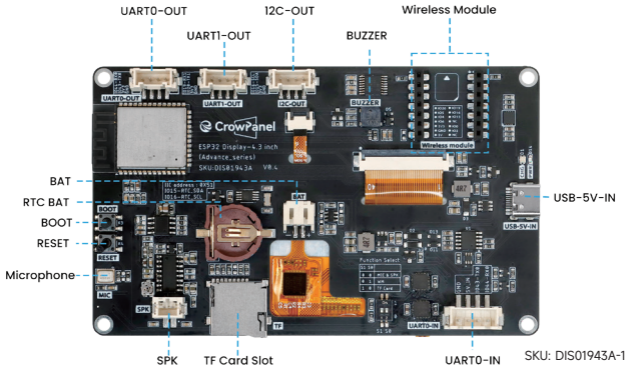
## 3.5 Inch HMI Display Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



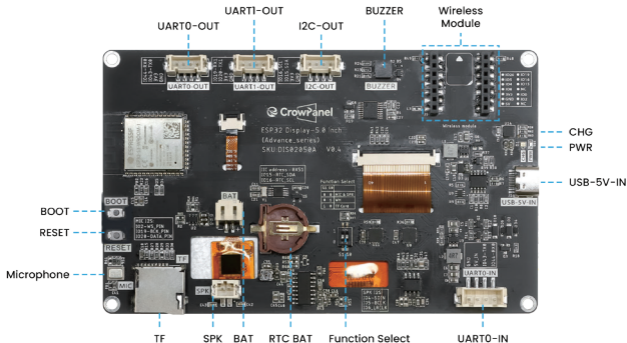
## 4.3 Inch HMI Display Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



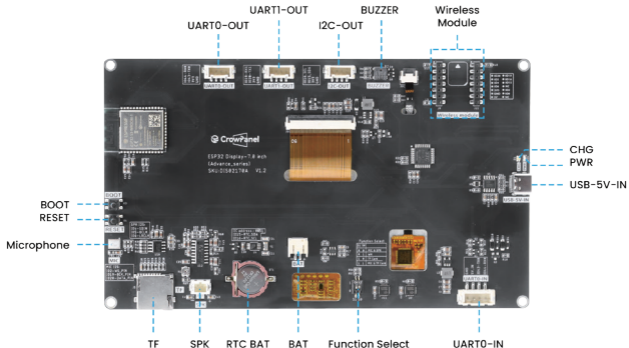
# 5 Inch HMI Display Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



# 7 Inch HMI Display Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



SKU: DIS02170A-1



# Parameters

	2.4"	2.8"	3.5"
MCU	ESP32-S3-WROOM-1		
Clock Frequency	240 MHz		
System Memory	512KB SRAM, 8MB PSRAM		
Storage	384KB ROM, 16 MB Flash		
Wireless Communication	Support 2.4GHz, 802.11a/b/g/n, Bluetooth 5.0 and BLE		
AI-Compatible	Support(Include MIC, Speaker)		
Replaceable Module	(Optional) Wireless Module-ESP32-H2/Wireless Module-WiFi Halow/Wireless Module-nRF2401/Wireless Module-LoRa		
RTC	NO		YES
Interface	1*UART1-OUT, 1*UART0-IN 1*12C, 1*USB0, 1*USB1, 1*BAT 1*SPK, 1*TF Slot		1*UART1-OUT, 1*UART0-IN 1*12C, 1*USB0 1*USB1, 1*BAT, 1*SPK 1*RTC BAT, 1*TF Slot
DisplayDriver	ST7789		IL19488
Resolution	320*240		480*320
Touch Type	Capacitive		
Brightness	400 cd/m <sup>2</sup> (Type)		

# Parameters

	4.3"	5.0"	7.0"
Main Processor	ESP32-S3-WROOM-1		
Clock Frequency	240 MHz		
System Memory	512KB SRAM, 8MB PSRAM		
Storage	384KB ROM, 16 MB Flash		
Wireless Communication	Support 2.4GHz, 802.11a/b/g/n, Bluetooth 5.0 and BLE		
AI-Compatible	Support(Include MIC, Speaker)		
Replaceable Module	(Optional) Wireless Module-ESP32-H2/Wireless Module-WiFi Halow/Wireless Module-nRF2401/Wireless Module-LoRa		
RTC	YES		
Interface	1*UART0-OUT, 1*UART1-OUT, 1*UART0-IN, 1*I2C, 1*BAT, 1*SPK, 1*RTC BAT, 1*TF Slot, 1*USB-5V-IN		
Display Driver	ST7265	ST7262	GW1076-2
Resolution	800*480		
Touch Type	Capacitive		
Screen Type	IPS		
Brightness	400 cd/m2(Type)		

## Expansion Resources

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- Wiki
- Code lib
- Github
- ESP32-S3 Datasheet
- 3D File

For More Details, Please  
Scan the QR Code.



## Safety Instructions

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To ensure safe use and avoid injury or property damage to yourself and others, please follow the safety instructions below.

- Avoid exposing the screen to sunlight or strong light sources to prevent affecting its viewing effect and lifespan.
- Avoid pressing or shaking the screen hard during use to prevent loosening of internal connections and components.
- For screen malfunctions, such as flickering, color distortion, or unclear display, stop use and seek professional repair.
- Before repairing or replacing any equipment components, make sure to turn off the power and disconnect from the device.