



ESP32-S3 HMI AI Display CrowPanel Advance Series

FCC ID: 2BDNA-AP06



User Manual

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

Package List

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 Type-C Cable



1 x Crowtail/Grove to 4pin
DuPont Cable



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



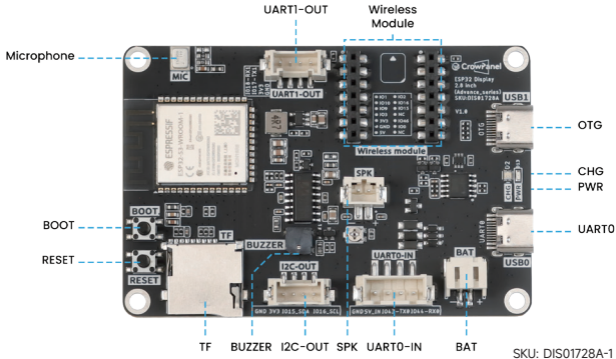
1x screwdriver&4x screw
(Only the shelled version includes it)



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

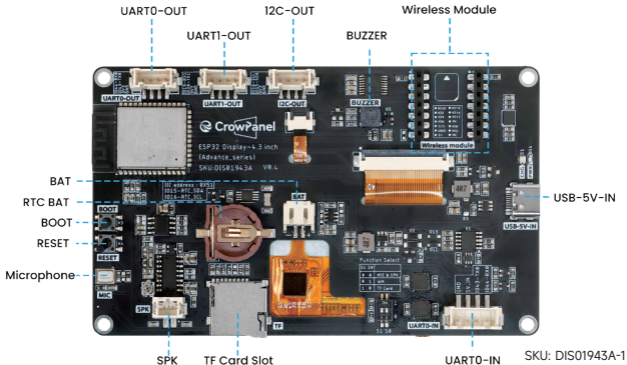
2.8 Inch HMI Display Buttons and Interfaces

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



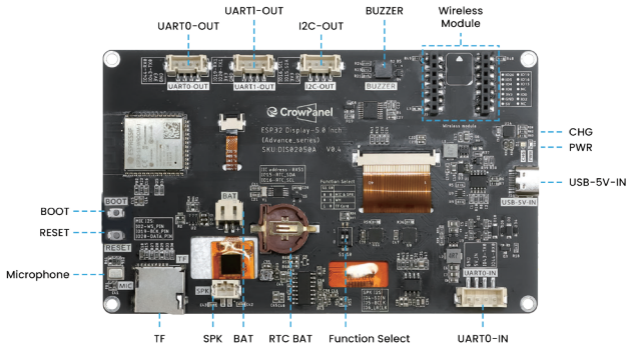
4.3 Inch HMI Display Buttons and Interfaces

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

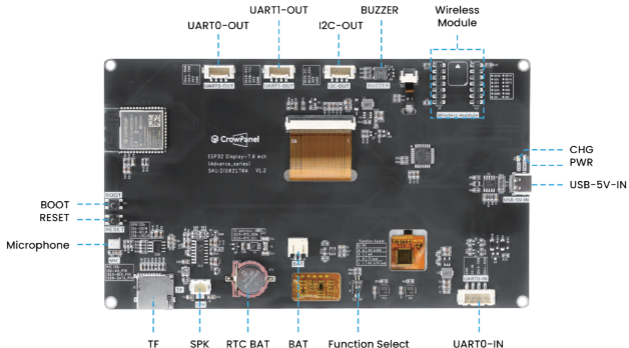
Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.



SKU: DHE04005D

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 ² (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

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

For More Details, Please
Scan the QR Code.



Safety Instructions

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.

FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.



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