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Unleash Your Creativity with ESP32-S3-BOX-3: The Next-generation Open-source AIoT Kit

With its fully open-source development resources, the ESP32-S3-BOX-3 is the ultimate choice for prototyping new projects or building complex IoT systems..

Shanghai, China, Aug 25, 2023

Espressif Systems (688018.SH) is excited to announce the latest addition to its lineup of development kits, the ESP32-S3-BOX-3. This fully open-source AIoT development kit is based on the powerful ESP32-S3 AI SoC, and is designed to revolutionize the field of traditional development boards and establish itself as a next-generation development tool.

ESP32-S3-BOX-3 comes packed with a rich set of assemblies, empowering developers to easily customize and expand its functionality with Espressif's trusted software solutions such as ESP-SR, ESP RainMaker and Matter solution. Whether you're a professional engineer, a maker, a hobbyist, an educator, or a student, the ESP32-S3-BOX-3 is the ultimate choice for prototyping new projects or building complex IoT systems!

Unparalleled AI Capabilities

ESP32-S3-BOX-3 is based on Espressif's ESP32-S3 Wi-Fi + Bluetooth 5 (LE) SoC, with AI acceleration capabilities. In addition to ESP32-S3's 512KB SRAM, ESP32-S3-BOX-3 comes with 16MB of Quad flash and 16MB of Octal PSRAM.

ESP32-S3-BOX-3 runs Espressif's own speech recognition framework ESP-SR, which enables it to provide users with an offline AI voice assistant. It features far-field voice

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interaction, continuous recognition, wake-up interruption, and the ability to recognize over 200 customizable command words.



BOX-3 can also be transformed into an online AI chatbot using advanced AIGC development platforms like OpenAI. Read this blog and discover the potential of combining ChatGPT with BOX-3, which can revolutionize the way we interact with IoT devices. You can also check out the ChatGPT demo here.

Powered by the high-performance ESP32-S3 SoC, BOX-3 provides an out-of-the-box solution for developers looking to create Edge AI and HMI applications. Its advanced features and capabilities make it an ideal choice for those in the IIoT industry who want to embrace Industry 4.0 and transform traditional factory operating systems.

Rich Assemblies for Flexible Extensibility

ESP32-S3-BOX-3 is equipped with a 2.4-inch (320 x 240) SPI touch screen, two digital microphones, a speaker, a Type-C port, and a high-density PCIe connector which allows for hardware extensibility.

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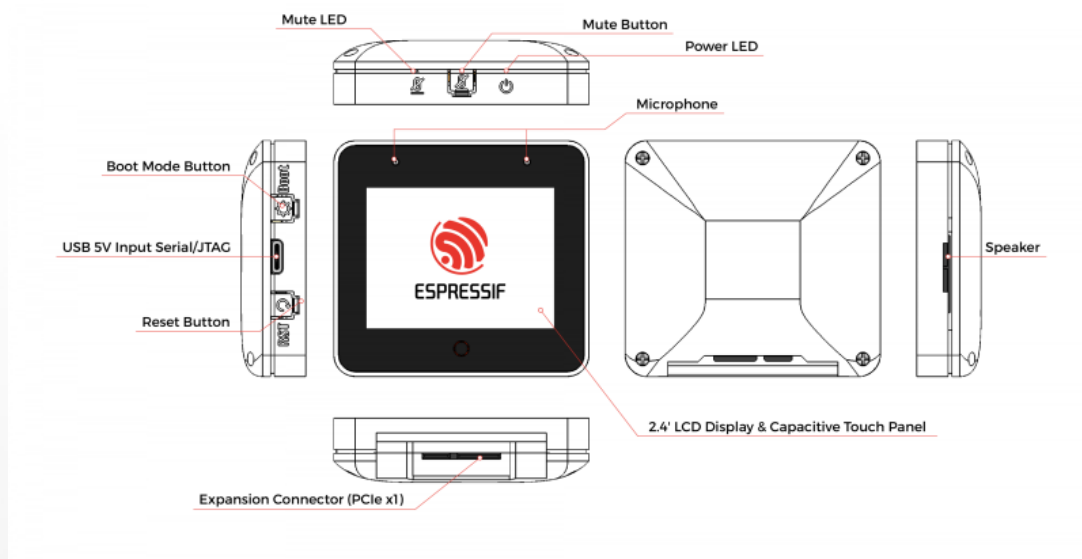
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ESP32-S3-BOX-3 also provides rich assemblies. ESP32-S3-BOX-3-SENSOR and ESP32-S3-BOX-3-DOCK are both accessories that provide additional functionality to BOX-3. The SENSOR features multiple built-in components such as a temperature humidity sensor, IR emitter and receiver, radar sensor. The DOCK has two Pmod™-compatible headers (16 programmable GPIOs), which allow users to expand additional peripheral modules.

ESP32-S3-BOX-3-BREAD is an adapter that is specifically designed to make it easier to connect the BOX to a standard breadboard. ESP32-S3-BOX-3-BRACKET adapter supports integrating ESP32-S3-BOX-3 as a part of any device, empowering you to unleash the full potential of your non-smart devices.

Matter Ecosystem and Cloud Control

The ESP32-S3-BOX-3 is a versatile device that supports Matter, enabling users to utilize it as a Matter over Wi-Fi/Thread end-device, Thread border router, or Matter gateway.

Additionally, it supports working with the open-source home automation platform Home Assistant, providing users with a powerful local home controller that rivals Am-

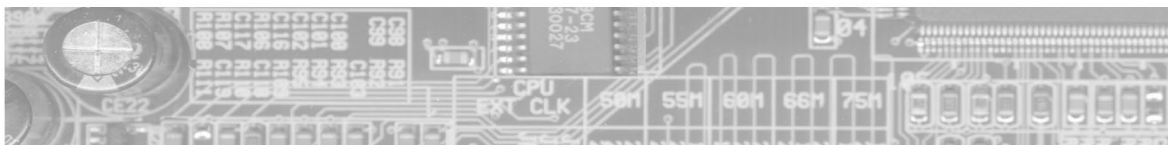
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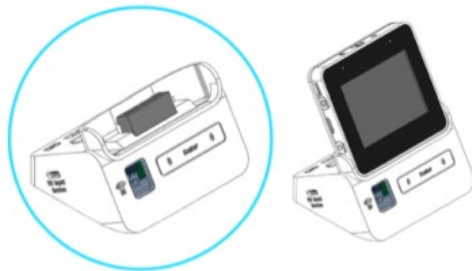


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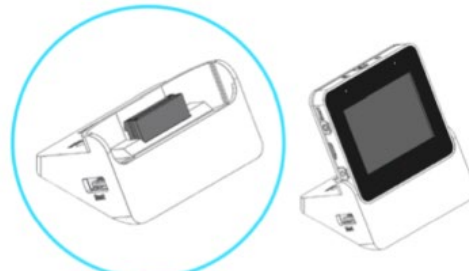
Amazon Echo and Google Home. Its outstanding AI capabilities and low power consumption make it the ideal choice for smart home automation, delivering seamless connectivity and effortless control over a wide range of devices.



ESP32-S3-BOX-3-SENSOR

Accessory with multiple rich built-in components

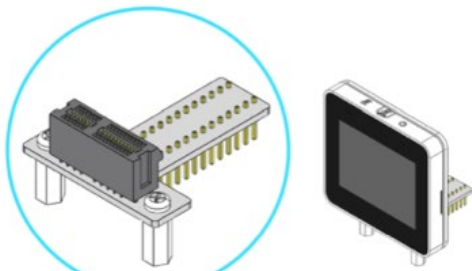
- 18650 rechargeable battery slot
- MicroSD card slot
- Temp&hum sensor, IR emitter and receiver, radar sensor



ESP32-S3-BOX-3-DOCK

Accessory expands external modules

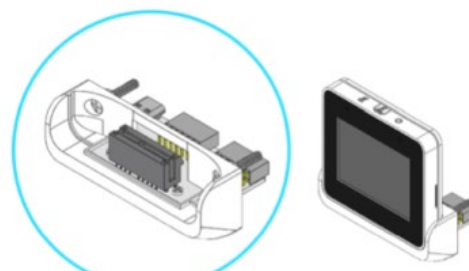
- Pmod™-compatible headers (16 programmable GPIOs)
- USB Host interface
- Power Input interface



ESP32-S3-BOX-3-BREAD

Adapter for DIY development on a breadboard

- 36-pin PCIe connector for ESP32-S3-BOX-3
- 2 rows of 2.54mm pin headers for breadboard
- 16 programmable GPIOs (configurable as various interfaces)



ESP32-S3-BOX-3-BRACKET

Adapter for quickly integrating AI voice, HMI, wireless connection, and other functions into non-smart devices

Espressif's AIoT Cloud platform, ESP RainMaker®, can be used with the ESP32-S3-BOX-3 to configure GPIOs and offline voice commands, while also offering remote control via phone Apps and/or third-party voice assistants.

ESP Insights provides a remote diagnostics solution to monitor the health of the BOX-3 in the field, ensuring optimal performance at all times.

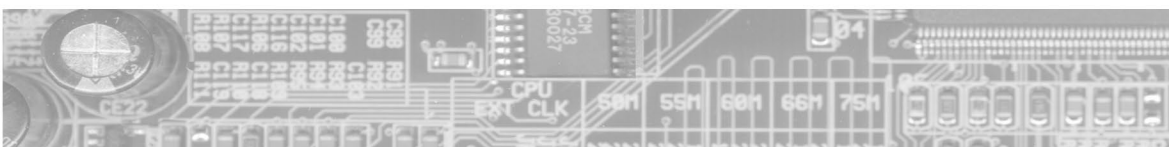
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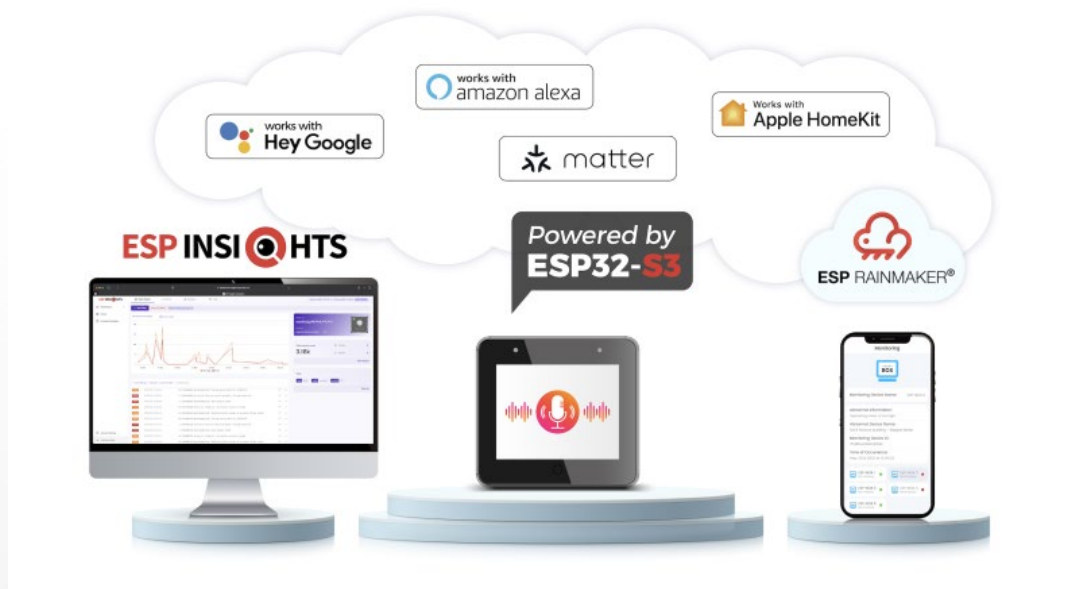
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Open-source Resources for Easy Getting Started

ESP32-S3-BOX-3 comes with a comprehensive set of documentation, examples, and development resources, making it easy to get started and up to speed quickly.

- Use Espressif's online firmware flashing platform ESP Launchpad for quick performance with just one click.
- With the LVGL graphics library and SquareLine Studio's intuitive drag-and-drop interface, users can quickly implement the GUI development. See LVGL demo. It also supports Embedded Wizard.
- Implement private Cloud-based remote control and phone control via ESP RainMaker.
- Remotely monitor the devices and debugging on ESP Insights dashboard.
- Build Matter over Wi-Fi/Thread end-devices, Thread border routers, Matter gateways with ESP Matter Solution.
- Use IDF Component Manager to easily integrate the BOX-related components into your projects.

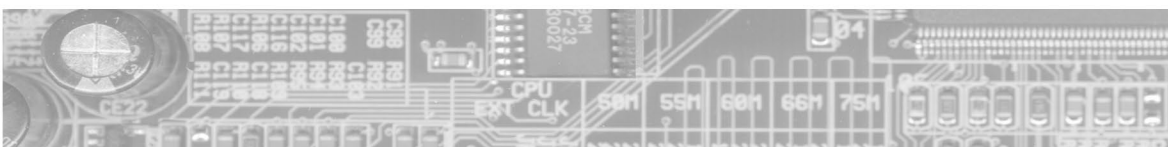
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BOX-3 not only supports ESP-IDF, but also provides seamless integration with third-party development platforms like Arduino, PlatformIO and CircuitPython. This allows developers to work with the development platform of their choice, providing them with greater flexibility and convenience.

This versatile tool will unleash infinite possibilities for your project. Explore your AIoT development journey with ESP32-S3-BOX-3!



ChatGPT AI Chatbot



Library Management System



Stand Reminder



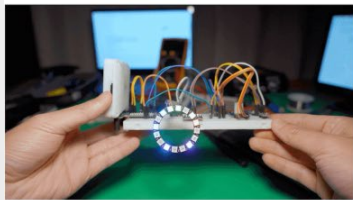
Edge AI in Industry 4.0



Matter Controller



Handheld Gaming Console



DIY Light Strip



Energy Consumption Monitor



Robot Dog

ESP32-S3-BOX-3 is now included in Espressif's Wildlife Protection Program. By supporting BOX-3, you can join our efforts to preserve the diversity of life and protect our planet's delicate ecosystems.

Availability and Pricing

For more information availability and pricing please visit email:

sales.europe@macnica.com.

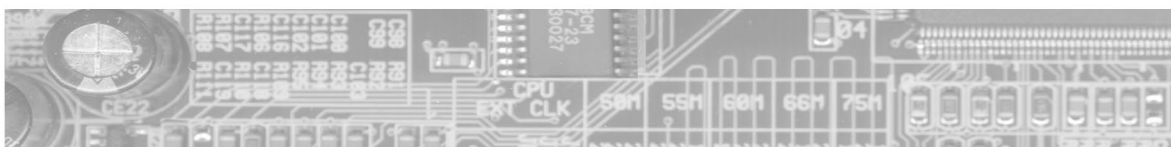
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About Espressif Systems

Espressif Systems (Shanghai) Pte. Ltd. is a fabless semiconductor company, with headquarters in Shanghai Zhangjiang High-Tech Park, providing low power Wi-Fi and Bluetooth SoCs and wireless solutions for the Internet of Things (IoT).

The company build the widely popular ESP8266 and ESP32 chips with an innovative team of chip-design specialists, software and firmware developers and marketers. Espressif is committed to providing the best IoT devices and software platforms in industry.

The company also helps their customers build their own solutions and connect with other partners in the IoT ecosystem. Their passion lies in creating state-of-the-art chip-sets and enabling partners to deliver great products. Espressif's products are widely deployed in the tablet, OTT boxes, cameras, and Internet of Things markets.

For more information, please visit <https://www.espressif.com>.

About Macnica ATD Europe GmbH, (former Macnica GmbH)

Macnica's ATD Europe GmbH, (former Macnica GmbH), was originally established in the UK in 2006, and moved to Germany in July 2008, to increase efficacy of its service for European customers.

By it's acquisition of the Munich based company Scantec Mikroelektronik in 2014 Macnica Europe formed a powerful semiconductor distribution with headquarter in Ingolstadt and offices in Munich, Regensburg, Milton Keynes (UK) and Warsaw offering an attractive and competitive portfolio of highly sophisticated devices.

Macnica provides end to end support from design-in to production through its global service network to its customers, regardless of the final destination of the product shipment to customers' manufacturing locations.

About Macnica ATD Europe S.A.S.

Founded in 1990 as ATD Electronique, Macnica ATD Europe headquarter offers innovative components dedicated to imaging applications for the European market. Its product

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portfolio includes: image sensors (CCD, CMOS, InGaAs, Thermal etc.), optics, interface circuits, FPGA & IPs, imaging processors, cables and OLED microdisplays.

It also covers development tools and design services enabling fast and efficient realization of new high-performance camera systems for markets such as machine vision, medical, life sciences, surveillance, automotive and others. After the acquisition of the company by Macnica Inc. as of October 1, 2020 the company operates under the name Macnica ATD Europe.

About Macnica, Inc.

Macnica was established in 1972 as a semiconductor distribution company headquartered in Yokohama, Japan, and has over 85 sales offices worldwide in eastern Asia, Europe and the USA. Total number of employees is over 3,900 and its consolidated revenue for fiscal 2021 was approximately US\$ 7.6 B.

Macnica is famous for having an excellent engineering team of more than 900 application support engineers, IC designers and software developers with strong focus on providing technical support for its customers including custom design services. Macnica is continuing to extend its presence globally by having successful partners in strategic areas in the electronics market.

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