UDOO KEY

Developer board with ESP32-WROVER-E module and RP2040 microcontroller

Fully programmable board built on Raspberry Pi RP2040 and ESP32, made for AI applications and rapid prototypes



HIGHLIGHTS

CPU
ESP32-DOWDQ6 processor

CONNECTIVITY
Programmable expansion connectors

NETWORKING
Wi-Fi 802.11 b/g/n + BT 4.2/BT LE

MEMORY
Internal 520KB SRAM + 16KB SRAM in RTC

ESPRESSIF

MAIN FIELDS OF APPLICATION

Industrial Automation

Smart Devices

Smart Buildings & Smart Cities

FEATURES

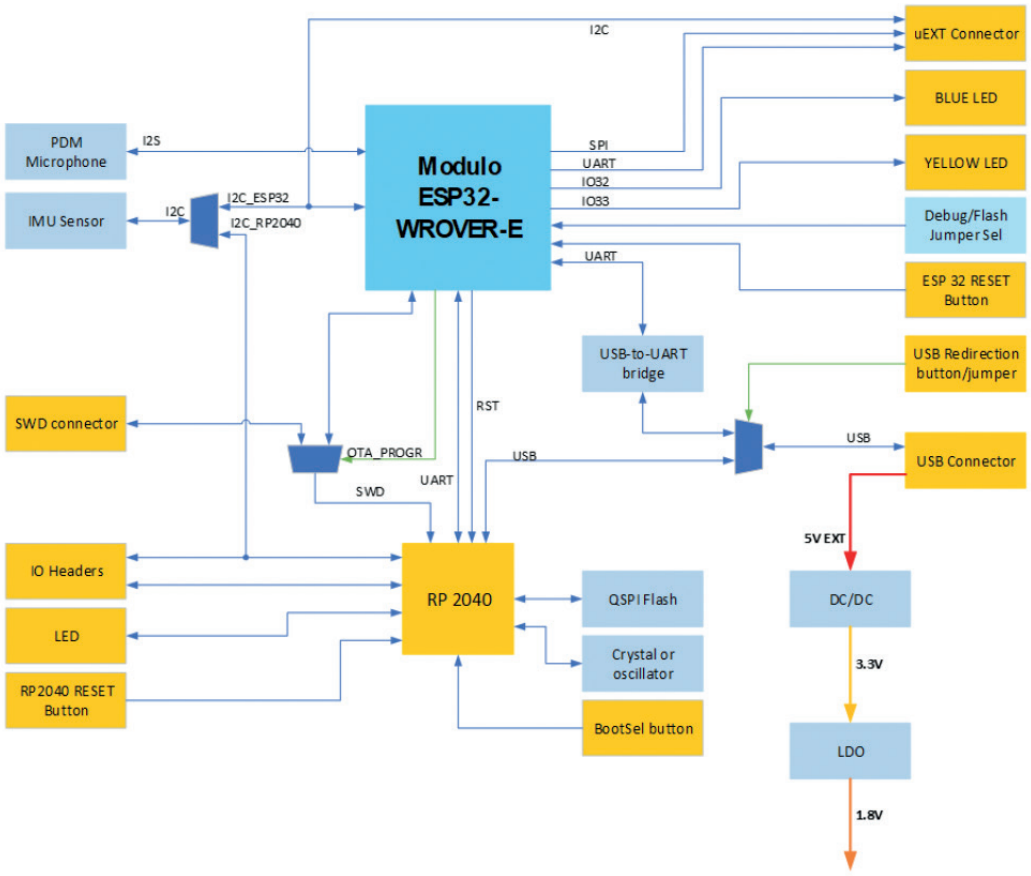
Processor	ESP32-DOWDQ6 processor, Dual Core Xtensa® 32-bit LX6 Microprocessor and RP2040
Memory	Internal 520KB SRAM + 16KB SRAM in RTC
Mass Storage	16MB SPI Flash (on ESP32) 8MB PSRAM (on ESP32) 8MB Flash (on RP2040) 264kB SRAM (on RP2040)
Networking	Embedded Wi-Fi (802.11 b/g/n) + BT 4.2/BT LE module with PCB antenna
USB	USB 2.0 on Type-C connector for serial communication and programming of ESP32 or RP2040
Other Interfaces	Interfaces on UEXT connector: · +3.3V / GND · 1x UART (from ESP32) · 1x I2C (from ESP32) · 1x SPI (from ESP32) On RP2040 header: · 24x GPIOs
Other	1x 6-axis Inertial Measurement Unit (IMU) 1x PDM microphone 2x programmable LEDs
Power Supply	+5V_{DC}, USB Type-C connector
Operating Temperature	0° to +60°C
Dimensions	130 x 40 x 10.9 mm

Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet

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BLOCK DIAGRAM



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Streamline and expedite your edge computing implementations

EDGEHOG OS

A flexible operating system that adapts to your needs, thanks to the customization tool and Docker support. Reliability and security are built-in through a dual-partition system and native integration with Exein's robust AI-based protection.

DEVICE MANAGER

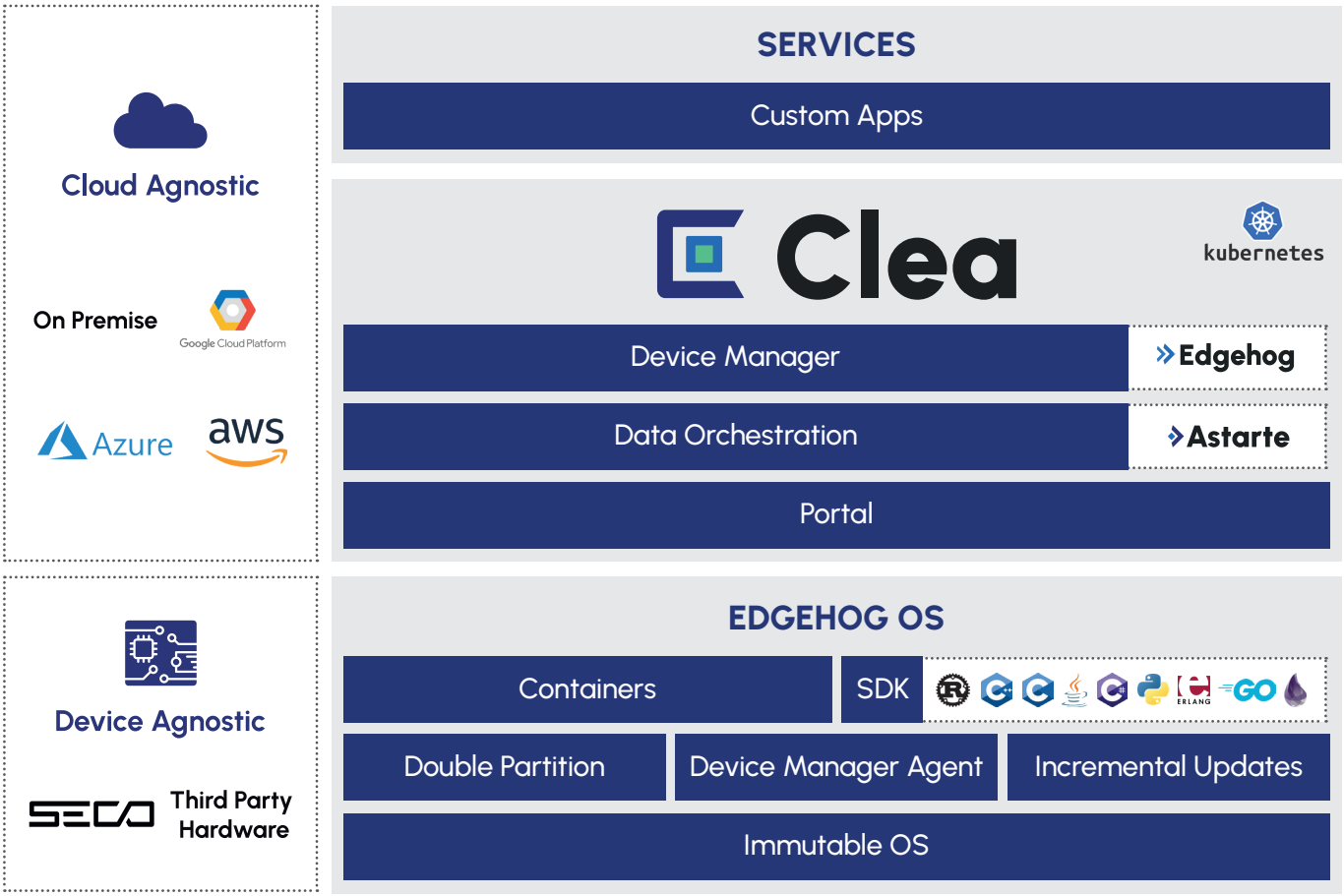
Update, configure, and manage remote devices. Optimize time and costs to maximize operational efficiency and security without the need for costly field interventions.

DATA ORCHESTRATION

Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

PORTAL

Analyze data from remote devices, customize the user experience with applications tailored to user needs, and manage user rights, company access, and tenant privileges.



Scan to know more about our solution

EDGEHOG OS

CLEA DOCS

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