Espressif's ESP32-S2 Wi-Fi SoC

Main CPU

Xtensa® 32-bit LX7 Microprocessor

JTAG

ROM

Cache

SRAM

Wi-Fi

Wi-Fi MAC

Wi-Fi baseband

RF

RF receiver

Clock generator

RF transmitter

Switch

Balun

Peripherals and Sensors

Embedded flash / PSRAM

General purpose Timers

SPI / LCD interface

I²S / Camera interface / LCD interface

GPIO

I²C

LED_PWM

UART

Pulse counter

RMT

USB OTG

DAC

TWAI

ADC

Touch sensor

Temperature sensor

RTC

PMU

ULP co-processor

RTC memory

Cryptographic Hardware Acceleration

SHA

RSA

AES

RNG

HMAC

Digital signature