

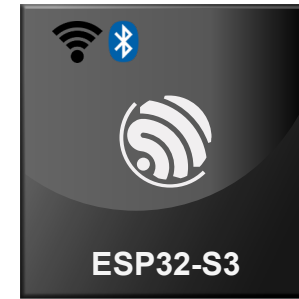
# SoC - System on a Chip - ESP32 overview



- Single Core 32-bit LX7 CPU 240 MHz
- 43 GPIO's
- Flash (MB) - N/A
- PSRAM (MB) - R2
- 2.4 GHz Wi-Fi
- USB - OTG interface
- 128 KB ROM
- 320 KB SRAM
- 1 GB ext. RAM/Flash

- Single Core 32-bit LX7 CPU 240 MHz
- 43 GPIO's
- Flash (MB) - H/N 2/4
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Flash temperature -40°C until  
H: High temperature 105°C  
N: Normal temperature 85°C  
pseudo static RAM  
OTG - On-the-Go up to 12 Mb/s

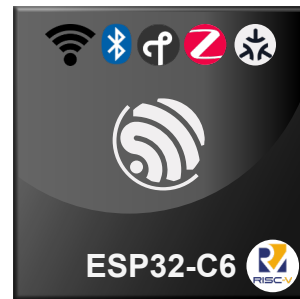


- dual Core 32-bit LX7 CPU 240 MHz
- Bluetooth 5 (LTE)
- 45 GPIO's
- Flash (MB) - N/A 4/8
- PSRAM (MB) - R2/8
- 2.4 GHz Wi-Fi
- USB - OTG interface
- 384 KB ROM
- 512 KB SRAM
- 1 GB ext. RAM/Flash

- dual Core 32-bit LX7 CPU 240 MHz
- Bluetooth 5 (LTE)
- 45 GPIO's
- Flash (MB) - 8
- PSRAM (MB) - R2/8
- 2.4 GHz Wi-Fi
- USB - OTG interface
- 128 KB ROM
- 320 KB SRAM
- 1 GB ext. RAM/Flash

no additional peripheral components required!

It seamlessly integrates all peripheral components, including a crystal oscillator, decoupling capacitors, SPI flash/PSRAM, and RF matching links, within a single package.



- Single Core 32-bit RISC-V CPU 120 MHz
- Bluetooth 5 (LTE)
- 14 GPIO's
- Flash (MB) - H 2/4
- PSRAM (MB) - N/A
- 2.4 GHz Wi-Fi
- 576 KB ROM
- 272 KB SRAM
- Chip temp. Sensor

- Single Core 32-bit RISC-V CPU 160 MHz
- Bluetooth 5 (LTE)
- 15 GPIO's
- Flash (MB) - H 2/4
- PSRAM (MB) - N/A
- 2.4 GHz Wi-Fi
- 384 KB ROM
- 400 KB SRAM
- Chip temp. Sensor

- Single Core 32-bit RISC-V CPU 160 MHz
- Bluetooth 5 (LTE)
- 16 AZ / 22 GPIO's
- Flash (MB) - N/A - H4
- PSRAM (MB) - N/A
- 2.4 GHz Wi-Fi
- 384 KB ROM
- 400 KB SRAM
- Chip temp. Sensor

- Single Core 32-bit RISC-V CPU 160 MHz
- Bluetooth 5 (LTE)
- 22 / 30 GPIO's
- Flash (MB) - N/A - H4
- PSRAM (MB) - N/A
- 2.4 GHz Wi-Fi 6
- 320 KB ROM
- 512 KB SRAM
- Chip temp. Sensor

QFN32 - 4 MB in-Package Flash

Real time Clock RTC  
AZ Chips ext. SPI Flash required

QFN40 Chips can add ext. SPI Flash



- Single Core 32-bit RISC-V CPU 96 MHz
- Bluetooth 5 (LTE)
- 19 GPIO's
- Flash (MB) - H 2/4
- PSRAM (MB) - N/A
- 128 KB ROM
- 320 KB SRAM
- Chip temp. Sensor

