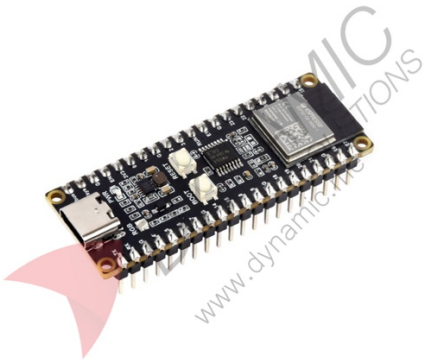
DYNAMIC SOLUTIONS

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ESP32-C6 Pico WiFi 6 Board



Features:

The board uses an ESP32-C6-MINI-1 module with a RISC-V processor at 160MHz, 4MB flash, Wi-Fi 6, Bluetooth 5 LE, Zigbee 3.0 and Thread. It has 20 GPIOs plus 7 expanded IOs through a TCA9554PWR chip on GPIO22/GPIO23. An MP28164 buck-boost chip supplies up to 2A, and a Type-C port with auto-download handles programming. It has BOOT and RESET buttons, an RGB LED on GPIO8, and a Raspberry Pi Pico compatible pinout. Use a USB supply of 4.9V or more.

Parameter	
Model	ESP32-C6-Pico-M (pre-soldered header)
Module	ESP32-C6-MINI-1
Processor	RISC-V 32-bit single-core, up to 160 MHz
ROM	320 KB
SRAM	512 KB HP SRAM, 16 KB LP SRAM
Flash	4 MB
Wi-Fi	Wi-Fi 6, 2.4 GHz, 802.11ax/b/g/n, 40 MHz bandwidth
Bluetooth	Bluetooth 5 LE, Bluetooth Mesh
IEEE 802.15.4	Zigbee 3.0, Thread
GPIO	20 multi-function GPIO
Expanded IO	7 (EXIO1-EXIO7 via TCA9554PWR on GPIO22/GPIO23)
Interfaces	SPI, I2C, UART, ADC, PWM, USB
USB	Type-C, programming and serial debugging
Power Chip	MP28164 DC-DC buck-boost, up to 2 A
USB Supply	4.9V or higher recommended
Buttons	BOOT, RESET
LEDs	RGB LED (GPIO8), power indicator
Form Factor	Castellated edges, Raspberry Pi Pico compatible pinout
Low Power	Multiple low-power states
Programming	Arduino, ESP-IDF
Weight	10 g
Package	ESP32-C6-Pico with pre-soldered header x1
Usage	Smart home, industrial automation, healthcare, consumer electronics and AIoT projects

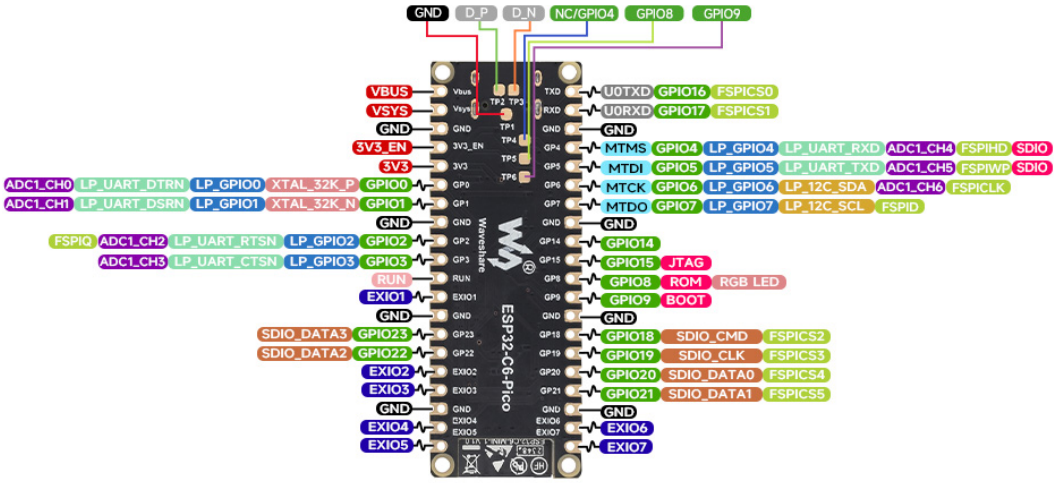
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Pinouts:



PWM Capable Pin	OTHER Other Related Functions
LP_UART Low-Power UART Functions	ADCX_CH Analog-to-Digital Converter
FSPI Fast SPI Functions	STRAP Strapping Pin Functions
GPIOX General Purpose Input and Output	SDIO SDIO Functions
LP_I2C Low-Power I2C Functions	LP_GPIO Low-Power GPIO Functions
JTAG JTAG for Debugging	PWR Power Rails (3V3, 5V, Battery)
SERIAL Serial for Debug/Programming	GND Ground Plane
EXIO Expand the GPIO pin	

Hardware:

No.	Component	Description
1	ESP32-C6-MINI-1	RISC-V 32-bit single-core processor
2	BOOT button	Press it when resetting to enter download mode
3	RESET button	Resets the board
4	TCA9554PWR	GPIO expander, adds 7 IO pins (EXIO1-EXIO7)
5	MP28164	High efficiency DC-DC buck-boost chip
6	RGB LED	Onboard RGB LED (GPIO8)
7	Power indicator	Lights when the board is powered
8	USB Type-C port	Program downloading and serial debugging

