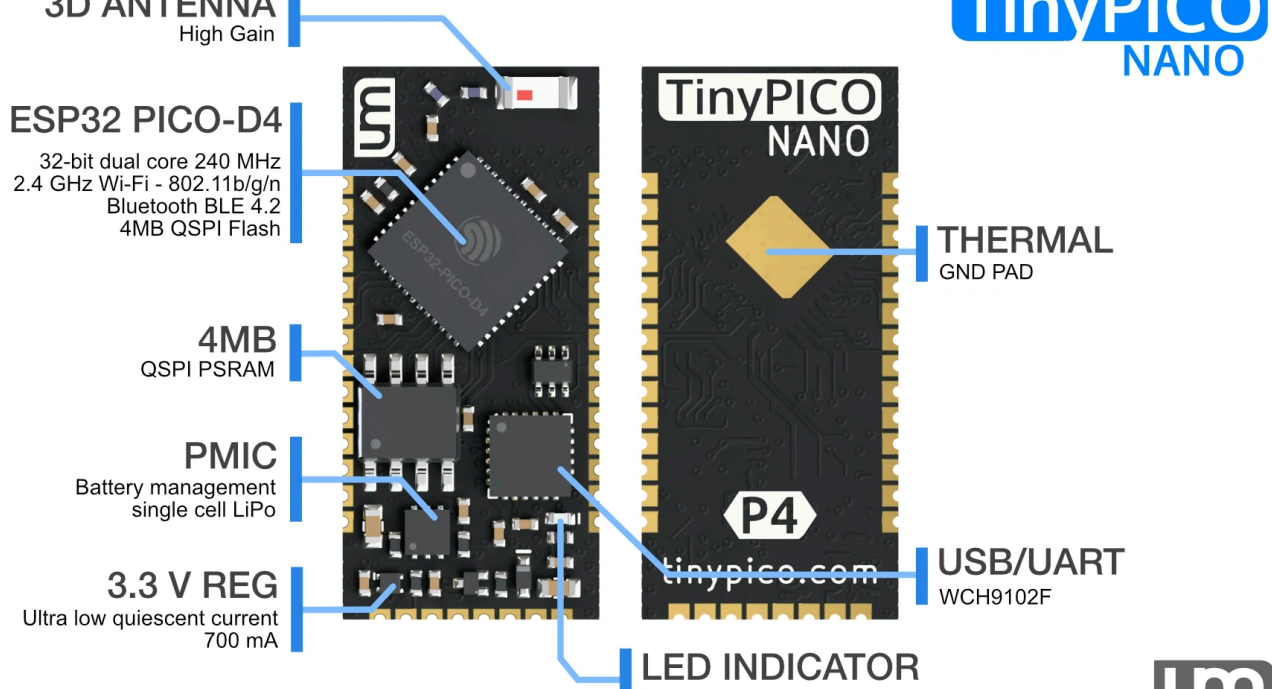


TinyPICO
NANO

Meet TinyPICO Nano V4

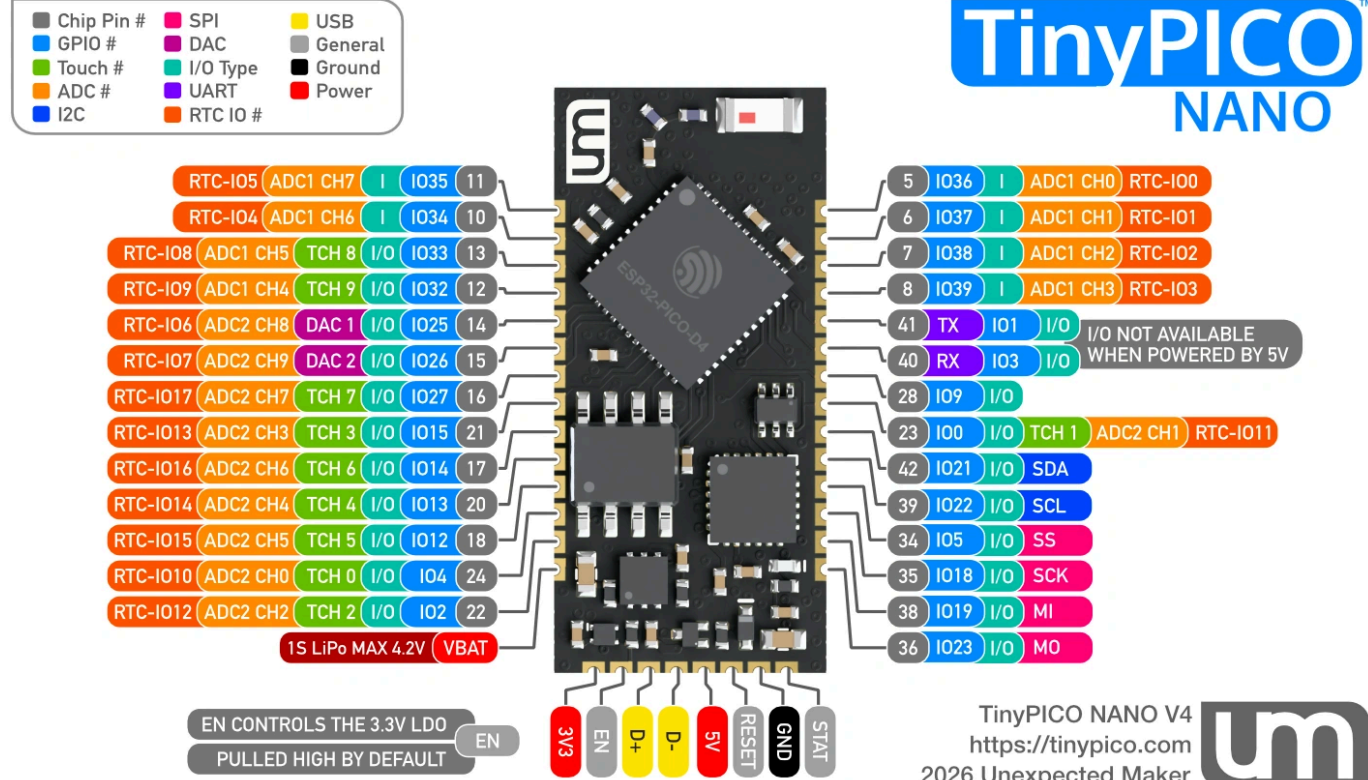
TinyPICO Nano V4 is the same TinyPICO Nano as the original. The Ignion antennas used on earlier versions have been discontinued, so V4 now includes a new high gain 3D antenna and RF network.



Features & Specifications

PROCESSOR	FLASH	PSRAM	GPIO
ESP32-PICO-D4	4 MB	4 MB	27
32-bit · Dual-core LX6 · up to 240 MHz	QSPI	QSPI	
WIRELESS			
Wi-Fi 4 2.4 GHz · 802.11b/g/n Classic BT + BLE 4.2			
USB	USB-to-serial / UART programming		
Power	700 mA · 3.3 V regulator · enable pin for LDO on/off control		
Battery	LiPo battery management · optimised power path for low-power battery use		
Connection	VBAT pin for battery connection		
Size	27 × 13 mm		
PCB	1 mm thick, previously 0.8 mm		

Pinout



TinyPICO Nano now ships with a CH9102F Serial UART chip like the regular TinyPICO. Blue power LED indicates CH9102F.

Compare the modules.

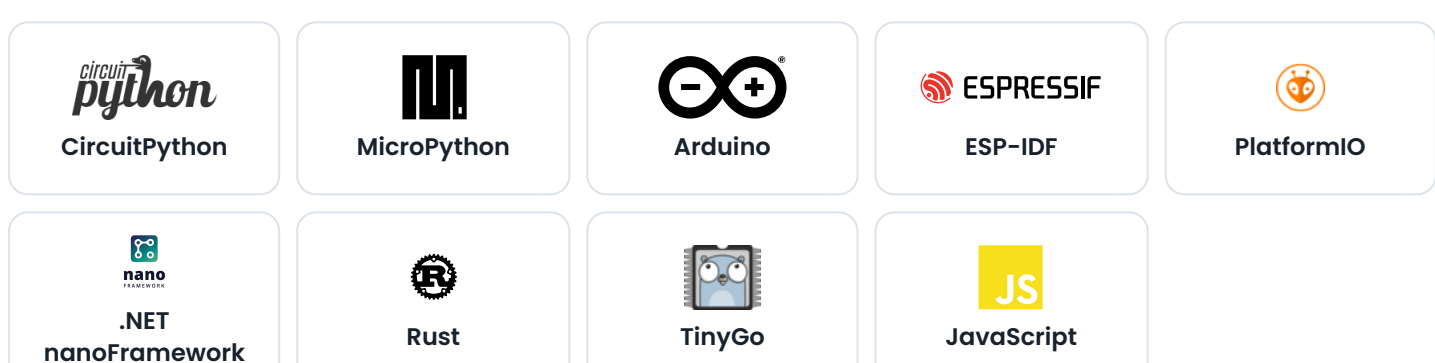
Find your next module.	Edges3[D]	OMGS3	NanoS3	TinyPICO Nano
MCU	ESP32-S3-PICO	ESP32-S3-PICO	ESP32-S3FN8	ESP32-PICO-D4
Processor	Dual-core LX7 · up to 240 MHz	Dual-core LX7 · up to 240 MHz	Dual-core LX7 · up to 240 MHz	Dual-core LX6 · up to 240 MHz
Flash	8 MB	8 MB	8 MB	4 MB
PSRAM	2 MB	2 MB	8 MB	4 MB
Available IO	29 + 8	17	27	27
2.4 GHz Wi-Fi	Wi-Fi 4	Wi-Fi 4	Wi-Fi 4	Wi-Fi 4
Bluetooth	BLE 5 + Mesh	BLE 5 + Mesh	BLE 5 + Mesh	Classic BT + BLE 4.2
Zigbee / Thread	—	—	—	—
Format / connection	M.2 B-Key module	Surface-mount module	Surface-mount module	Surface-mount module
USB	Via carrier · USB OTG / JTAG	Via carrier · USB OTG / Serial / JTAG	Via carrier · USB OTG / Serial / JTAG	Via carrier · USB-to-serial
3.3 V regulators	1 × 700 mA	1 × 700 mA	1 × 700 mA	1 × 700 mA
STEMMA QT	—	—	—	—
RGB LED	—	NeoPixel	NeoPixel	—
Antenna	Onboard + u.FL · software switch	Onboard	Onboard	Onboard
Battery	I ² C fuel gauge + LiPo charging	I ² C fuel gauge + LiPo charging	LiPo charging	LiPo charging
Size	22 × 23 mm	25 × 10 mm	28 × 12.7 mm	27 × 13 mm

Code any way you like!

Ships with MicroPython pre-installed!

The TinyPICO Nano ships with MicroPython for the ESP32.

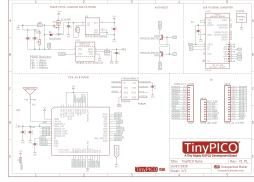
Of course, you can choose from a wonderful array of other languages and platforms. Explore them all below....



Downloads

Download TinyPICO Nano resources, including the schematic, 3D model, KiCAD footprint and more.

Schematic



Download ↓



GitHub

The TinyPICO hardware GitHub repository includes:

- 3D STEP and STL files for TinyPICO Nano
- Mechanical drawing
- KiCAD, Eagle, Altium and DipTrace footprints

Open GitHub repository →

ESP32-PICO-D4 datasheet

For detailed information about the ESP32-PICO-D4, including full IO capabilities and other functionality, refer to the datasheet from Espressif.

View ESP32-PICO-D4 datasheet →

Certification

TinyPICO NANO ships uncertified. If you use a TinyPICO NANO on a project that requires certification, you'll be required to also certify the WiFi and Bluetooth radios.