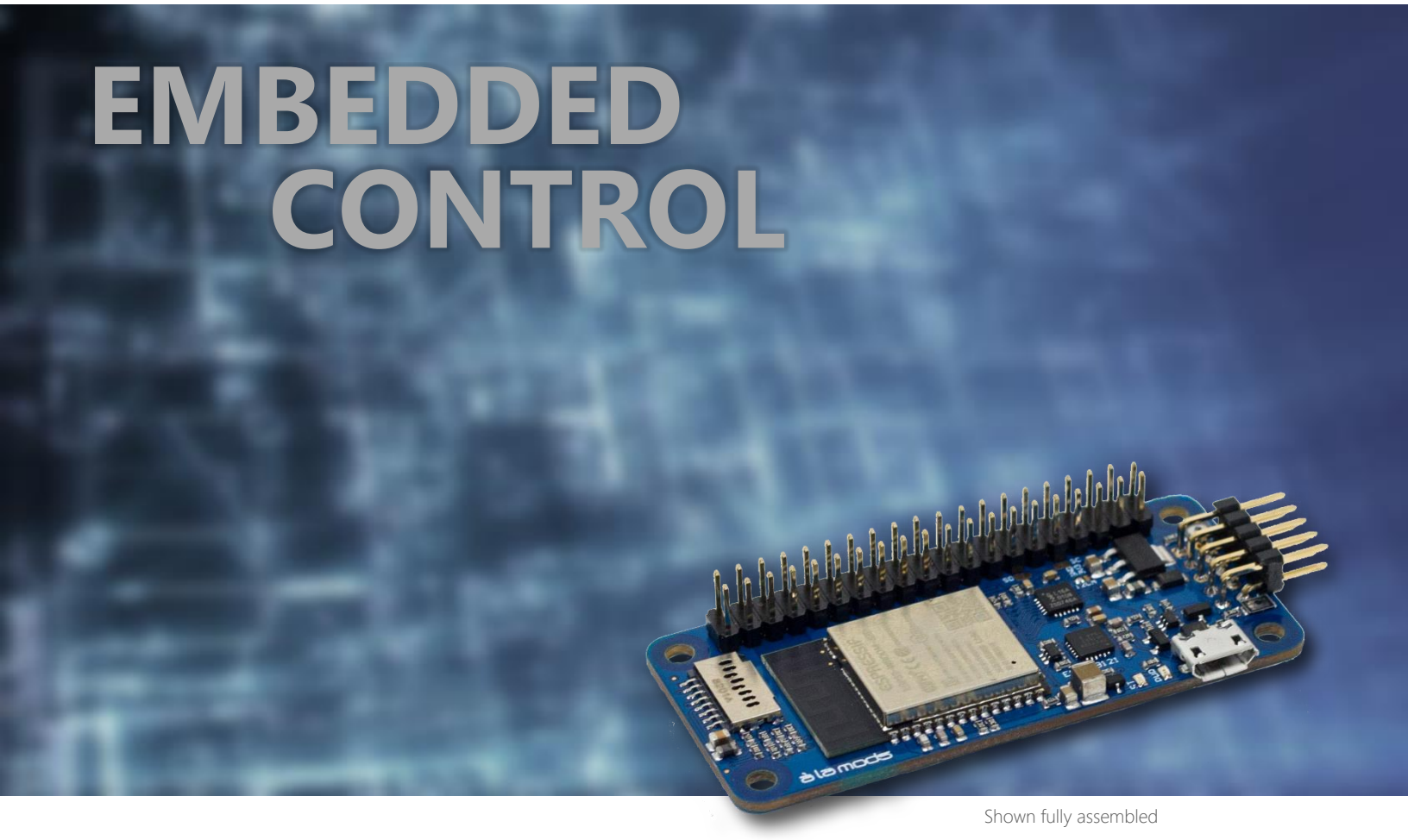
EMBEDDED CONTROL



Shown fully assembled

An embedded host microcontroller designed to drive the à la mods peripheral stack. This module provides a 240 (MHz) dual-core embedded microcontroller with myriad peripherals to support almost any embedded application.

- ESP32 Xtensa 32-bit LX6 dual-core 240 (MHz) 600 DMIPS embedded microcontroller
- Integrated WiFi and dual-mode Bluetooth w/ PCB antenna
- Integrated peripherals including: multiple SPI/I^2S/I2C/UART serial ports, hall sensor, temp sensor, PWM, touch inputs, IR controller, multiple ADC inputs & DAC outputs
- 5V input power (USB & GPIO header diode protected), 3V3 LDO up to 800 (mA)
- GPIO Expander for increased I/O
- 40 pin GPIO header Raspberry Pi® compatible pinout
- Status and power LED indicators
- SD Card slot & UEXT serial header
- Espressif IDF or Arduino development environment
- Arduino® IDE compatible console/programming port

SPECIFICATIONS

Power	5V @ 300 (mA_{max}) (recommended at least 500 mA supply) - GPIO header & USB port diode protected 3V3 LDO output up to 800 (mA) (shared with ESP32)
ESP32	WROOM-32 module w/ 4 MB of flash & PCB antenna
Wireless	WiFi 802.11 b/g/n/e/i (802.11n @ 2.4 (GHz) up to 150 (Mbps) Bluetooth v4.2 BR/EDR and BLE
I/O	26 GPIO I/O ports - ESP32 supported peripherals - SPI/I^2C/UART independent serial ports - 16 ESP32 direct I/O, 12 GPIO expansion I/O - USB console port
Configuration Jumpers	3V3 or 5V0 UEXT power source 0 or 1 GPIO expander I^2C address select GPIO ID_SD & ID_SC I^2C bus
Communication Interface	GPIO 40 pin header, USB console/programming port
LED Indicators	System (connected to GPIO header pin 22) Power
Operating Temp	0 °C to +60 °C Ambient
L x W Height (above pcb)	2.56 x 1.18 in. (65.0 x 30.0 mm) 0.34 in. (8.6 mm)

ORDERING DETAILS

EMBDZ19121-P	Embedded ESP32 host microcontroller w/ PCB antenna