FireBeetle 2 ESP32-E IoT Microcontroller with Header
DFR0654-F

Product Overview
10/27/2022
For the most up-to-date information, visit www.mouser.com or the supplier's website.
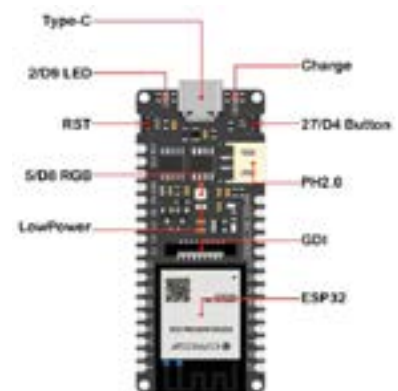
Description

DFRobot FireBeetle 2 ESP32-E IoT Microcontroller with Header is an ESP-WROOM-32E-based main controller board with dual-core chips. This board supports WiFi and BLUETOOTH® dual-mode communication and features a small size, ultra-low power consumption, onboard charging circuit, and easy-to-use interface. The FireBeetle 2 ESP32-E IoT Microcontroller board supports Arduino programming and will support Scratch graphical programming and MicroPython programming. This board has a stamp hole design that can be easily embedded in any PCB and saves your cost and time to build and test a prototype. Applications include smart home IoT and industrial IoT.

Features

- ESP32 Dual-core low power main controller, 10uA power consumption
- WiFi+Bluetooth 4.0 Dual-mode Module
- GDI Display Port, easy to connect
- Onboard Charging Circuit and PH2.0 lithium Battery Interface

Applications

- 1x FireBeetle 2 Board ESP32-E with Header
- 1x 18pin-2.54mm Pitch Pin
- 1x 18pin-2.54mm Pitch Pin Female
- 1x 14pin-2.54mm Pitch Pin
- 1x 14pin-2.54mm Pitch Pin Female

Specifications

- 3.3V Operating voltage
- 3.3V to 5.5V Input voltage range
- 2mA Low-power support
- 600mA@3.3V LDO maximum discharge current
- 500mA maximum charge current
- Support USB charging
- Processor:
  - Tensilica LX6 dual-core processor (one for high-speed connection and one for independent application development)
- 240MHz main frequency
- 520KB SRAM
- 4MB Flash
- Wi-Fi Standard:
  - FCC/CE/TELEC/KCC
- Wi-Fi Protocol:
  - 802.11 b/g/n/d/e/i/k/r (802.11n, speed up to 150 Mbps), A-MPDU, and A-MSDU aggregation support s0.4us guard interval)
- 2.4GHz to 2.5GHz frequency range
- Bluetooth Protocol:
  - Bluetooth v4.2 BR/EDR and BLE standard compliant
- Bluetooth Audio:
  - CVSD and SBC audio
- 80mA operating current
- Support Arduino download with one-key
- On-chip clock:
  - 40MHz crystal, 32.768KHz crystal
- 10x Digital I/O (Arduino default)
- 5x Analog Input (Arduino default)
- 1x SPI Arduino Default)
- 1x IIC (Arduino Default)
- 1x I2S (Arduino Default)
- 5/D8 RGB_LED
- Connector:
  - FireBeetle V2 series compatible
- -40C to +85C operating temperature range
- Module Size:
  - 25.4mm × 60mm/1×2.36"
- Mount Hole Size:
  - Inner diameter of 2.0mm

To learn more, visit https://www.mouser.com/new/dfrobot/dfrobot-dfr0654-f-firebeetle/