Maix Go & Bit AI Development Kit
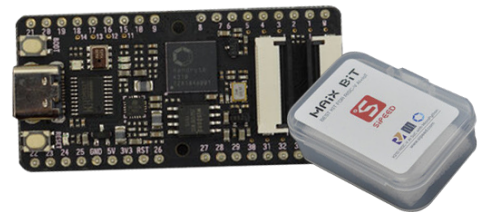
Product Overview
07/19/2022
For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

DFRobot Maix Go and Bit AI Development Kit feature RISC frame, high performance, low price, AI, and MicroPython support. This development Kit comes with dual-core processor chip with independent FPU, 64bits CPU bit-width, 8MB on-chip SRAM, 400 adjustable nominal-frequency, and double-precision FPU. The Bit AI development kit and board integrate onboard 128Mb high speed and large-capacity flash, high-speed USB to serial port chip CH552, RGB LED, MEMS microphone, 24pin DVP camera interface, and 24-pin 8bit MCU LCD interface. The Bit AI kit also includes M12 camera with 4mm focal length HD lens (with 650nm infrared cut filter).

The Maix Go Development Kit includes onboard accelerometer MSA300, audio encoding chip, and MEMS microphone.

Features

- K210 controller chip
- Chip Kernel:
    - Dual-core RISC-V 64 bit IMAFDC
- Main frequency:
    - Nominal 400M, can be overclocked to 600M
- Memory:
    - 6MB general-purpose memory+2MB AI memory
- 16MB Flash
- Support MicroPython
- Compatible with most OpenMV algorithms
- Support Neural network algorithm that encapsulates the nnn class of mpy
- Neural network algorithm speed:
    - Hundreds of GOPS (thousands of times STM32)
- Face detection speed:
    - Conventional algorithms 6 frames
- OVGA, RGB image:
    - AI acceleration can reach more than 60 frames

The information contained in this document should be used as a guideline only.

Features

- Debugging support:
  - UART and JTAG interface
- GPIO Interface:
  - All GPIOs connected to header 2.54mm
- DVP camera connector:
  - 24P 0.5mm FPC connector (compatible with OV2640, OV7740, OV5640, etc.)
- LCD Connector:
  - 8-bit MCU LCD 24P 0.5mm FPC connector
- Onboard MEMS Microphone
- Onboard TF Card Slot

Specifications

- 4.8V to 5.2V input current
- >600mA input current
- <30K temperature rise
- -30°C to 85°C operating temperature range
- Maix Bit AI Development Kit and Board:
  - 53.3mm × 25.4mm dimensions
- Maix Bit AI Development Kit:
  - M12 camera: 4mm focal length HD lens (with 650nm infrared cut filter)
  - 2.4" LCD display
- Maix Go AI Development Kit:
  - 90mm × 61.5mm × 9.5mm dimensions
  - 60mm × 88mm Maix Go size
  - 802.11 b/g/n wireless standard
  - 2400Mhz to 2483.5Mhz frequency range
- TX Power:
  - 802.11.b: +15dBm
  - 802.11.g: +10dBm(54Mbps)
  - 802.11.n: +10dBm (65Mbps)
- IPEX 3.0mm × 3.0mm antenna connector
- Station/SoftAP/SoftAP+Station WiFi mode

Mouser Part Numbers

View All Parts

To learn more, visit https://www.mouser.com/new/dfrobot/dfrobot-maix-go-bit-ai-dev-kit/