

102010610 | Seeed Studio XIAO MG24 Sense

SKU: 102010610

Product Overview

XIAO MG24 Sense is an ultra-low-power wireless development board based on Silicon Labs' EFR32MG24 SoC, featuring a 78MHz ARM Cortex®-M33 core. It supports Matter® over Thread® and Bluetooth® Low Energy 5.3 via the Arduino® Core. The board includes 4MB Flash, 19 GPIOs, an LED, and a charging circuit, with extremely low operating current and ultra-low-power modes. It is suitable for IoT applications, particularly battery-powered projects using Matter® protocols. Additionally, it features an onboard analog microphone and six-axis IMU sensors, making it ideal for TinyML applications such as posture detection.

Features

High Performance MCU: Silicon Labs' EFR32MG24 SoC, 32-bit 78 MHz ARM Cortex®-M33 with DSP instruction

Matter Native: Compatible with Matter® over Thread® and Bluetooth® Low Energy 5.3, Supported by the Arduino® Core

Outstanding RF Performance: Equipped with an on-board antenna with BLE range up to 50m in an open location with no signal interference, while reserving an interface for external UFL antenna

Super-Low Power Design: Power consumption less than 1.95uA in sleep mode, ideal for battery-powered home automation application

Advanced Onboard Sensors: Features additional analog microphone and 6-axis IMU for TinyML and edge AI applications such as pose perception for more responsive automation.

Security Encrypted On-Chip: A dedicated hardware secure engine containing its own CPU enables the Secure Vault functions.

Rich On-Board Resources: Additional 4MB Flash on board, on-board battery charging circuit, 19 GPIOs, LED

Classic XIAO Design: Remains the classic XIAO design of the thumb-size form factor of 21 x 17.8mm, and single-sided mount, making it perfect for space-limited projects such as wearables

XIAO Accessory Add-ons and Kits Compatibility: Natively compatible with all the XIAO accessory add-ons and kits of Grove Expansion, CAN-Bus, LED Matrix, Vision AI Sensor, Round Display, GSP Module, 2-Mic Array, ePaper Display, mmWave sensor, LoRa Module and many more. Production-Ready Design with Fusion PCBA Support Being the 12th member of the Seeed Studio XIAO family, the XIAO MG24 Sense remains the classic XIAO design (thumb-size, SMD, stamp holes). All these features make it a perfect fit for commercial PCBA (Printed Circuit Board Assembly) integration. Through our Fusion PCBA Sponsorship program, you can not only enjoy the lowest unit prices for all XIAO modules from our Fusion Open Parts Library, but also fabricate and scale your XIAO-based PCBA designs at low cost (30% off) with FREE Design for Manufacturing consulting services, streamlining your journey from prototype to production.

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Product Image



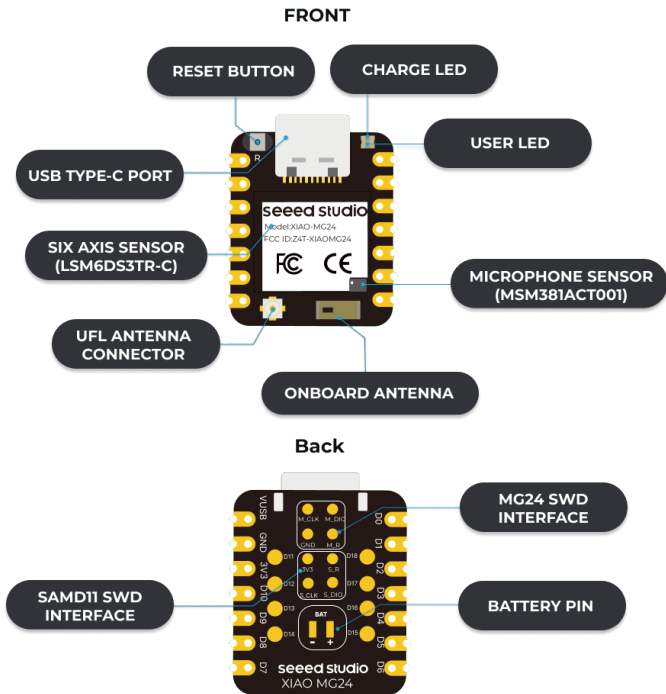
Product image

Specifications

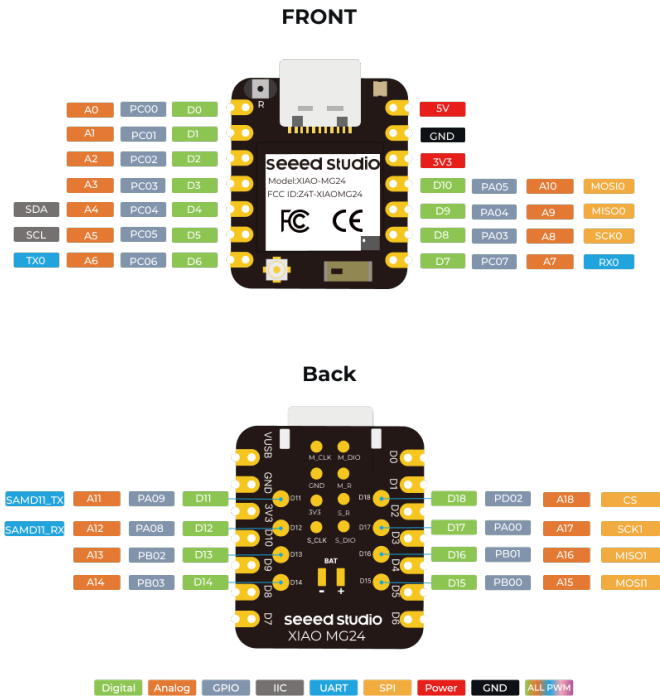
Product	XIAO MG24	XIAO MG24 Sense
Processor	Silicon Labs EFR32MG24	Silicon Labs EFR32MG24
ARM Cortex-M33 @ 78MHz	ARM Cortex-M33 @ 78MHz	
RAM	256kB	256kB
Flash	1536KB + 4MB Onboard	1536KB + 4MB Onboard
LEDs	1x User LED1x Power LED	1x User LED1x Power LED
Sensors		1x Onboard Analog Microphone1x Onboard 6-Axis IMU
Interface	22 Pins(All PWM):19x Analog19x Digital1x I2C2x UART2x SPI	22 Pins(All PWM):19x Analog19x Digital1x I2C2x UART2x SPI
Button	1x RESET Button	1x RESET Button
Security	Hardware Cryptographic Acceleration, True Random Number Generator, ARM® TrustZone®, Secure Boot, Secure Debug Unlock etc.	Hardware Cryptographic Acceleration, True Random Number Generator, ARM® TrustZone®, Secure Boot, Secure Debug Unlock etc.
Low power(Typ.)	1.95uA	1.95uA
Normal(Typ.)	6.71mA	6.71mA
Sleep(Typ.)	1.91mA	1.91mA
Software Compatibility	Arduino IDE	Arduino IDE

Product	XIAO MG24	XIAO MG24 Sense
Working Temperature	20degC-70degC	20degC-70degC
Dimensions	21x17.8 mm	21x17.8 mm

Hardware Overview



Hardware overview image



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