

## Seeed Studio XIAO MG24

# Seeed Studio XIAO MG24 Microcontroller User Manual

Model: XIAO MG24

## 1. INTRODUCTION

The Seeed Studio XIAO MG24 is a compact, high-performance microcontroller board designed for Internet of Things (IoT) and embedded applications. It integrates the Silicon Labs EFR32MG24 SoC, offering robust processing capabilities, Matter over Thread, and Bluetooth Low Energy (BLE) 5.3 connectivity. Its ultra-low-power design makes it suitable for battery-powered projects, while its Arduino compatibility ensures ease of development.

This manual provides essential information for setting up, operating, and maintaining your XIAO MG24, along with detailed specifications and troubleshooting tips.

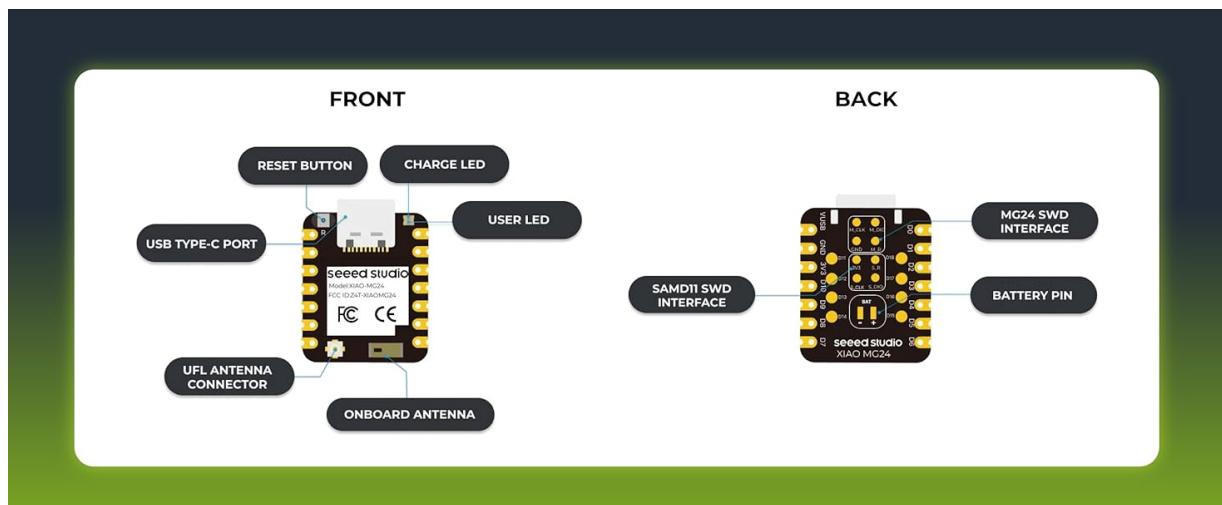


Image 1.1: Overview of Seeed Studio XIAO MG24 key features, including Matter-Native support, low power consumption, and security features.

## 2. KEY 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 open locations, with an interface for an external UFL antenna.
- **Super-Low Power Design:** Power consumption less than  $1.95\mu\text{A}$  in sleep mode, ideal for battery-powered applications.
- **Rich On-Board Resources:** Includes 4MB Flash, on-board battery charging circuit, 19 GPIOs, and an LED.
- **Security Encrypted On-Chip:** A dedicated hardware secure engine with its own CPU enables Secure Vault functions.
- **Classic XIAO Design:** Thumb-size form factor (21 x 17.8mm) and single-sided mount, suitable for space-limited projects.
- **XIAO Accessory Compatibility:** Natively compatible with various XIAO accessory add-ons and kits.

## 3. SETUP GUIDE

---

### 3.1 Physical Connection

To begin using your Seeed Studio XIAO MG24, connect it to your computer using a USB Type-C cable. The board will draw power and establish a data connection through this port.



Image 3.1: Front view of the Seeed Studio XIAO MG24, highlighting the USB Type-C port for power and data.

### 3.2 Software Setup (Arduino IDE)

The XIAO MG24 is compatible with the Arduino IDE. Follow these steps for initial software setup:

- 1. Install Arduino IDE:** Download and install the latest version of the Arduino IDE from the official Arduino website.
- 2. Add Board Manager URL:** In the Arduino IDE, go to *File > Preferences*. In the 'Additional Boards Manager URLs' field, add the URL for Seeed Studio boards. Refer to the official Seeed Studio documentation for the most current URL.
- 3. Install Board Package:** Go to *Tools > Board > Boards Manager*. Search for 'Seeed Studio XIAO' and install the corresponding board package.
- 4. Select Board:** After installation, go to *Tools > Board > Seeed Studio XIAO* and select 'XIAO MG24'.
- 5. Select Port:** Connect your XIAO MG24 to your computer. Go to *Tools > Port* and select the serial port corresponding to your connected board.

### 3.3 Pinout and Component Overview

Understanding the pinout and on-board components is crucial for proper integration and programming.



Image 3.2: Labeled diagram of the XIAO MG24's front and back components, including USB Type-C port, reset button, LEDs, UFL antenna connector, and SWD interfaces.

## Product Specifications

Parameter	XIAO MG24	XIAO MG24 Sense
Processor	Silicon Labs EFR32MG24 ARM Cortex-M33 @ 78MHz	
Short Description	Super-low power for battery-powered Matter projects	Super-low power board with <b>microphone &amp; 6-axis IMU</b>
Flash / RAM	1536KB + 4MB Onboard / 256kB	
LEDs	1 User LED, 1 Power LED	
Sensors	-	Onboard Analog Microphone Onboard 6-axis IMU
Interfaces	22 Pins: 11x Analog, 11x Digital, 1x I <sup>2</sup> C, 2x UART, 2x SPI, All PWM	22 Pins: 11x Analog, <b>19x Digital</b> , 1x I <sup>2</sup> C, 2x UART, 2x SPI, All PWM
Buttons	1 Reset Button	
Security Features	Hardware Encryption Acceleration, True Random Number Generator, ARM® TrustZone®, Secure Boot, Secure Debug Unlock, etc.	
Power Consumption	Low Power: 1.95µA Normal: 6.71mA Sleep: 1.91mA	
Software Compatibility	Arduino IDE	
Antenna Support	Max 2.4GHz Ceramic Antenna: 4.97dBi	
Operating Temperature	-20°C~70°C	
Dimensions	21x17.8 mm	

Image 3.3: Detailed pinout diagram for the Seeed Studio XIAO MG24, showing digital, analog, I<sup>2</sup>C, UART, SPI, and power pins.

## 4. OPERATING INSTRUCTIONS

### 4.1 Basic Programming

Once the Arduino IDE is set up, you can write and upload sketches to your XIAO MG24. Start with simple examples like blinking an LED to verify your setup. The board's 19 GPIOs offer flexibility for connecting various sensors and actuators.

### 4.2 Matter, Thread, and BLE 5.3 Connectivity

The XIAO MG24 is designed for modern IoT applications, supporting Matter over Thread and BLE 5.3. Utilize the provided libraries and examples within the Arduino environment to develop connected projects. Refer to Seeed Studio's online documentation and community forums for specific guides on implementing these protocols.

### 4.3 Ultra-Low Power Operation

For battery-powered applications, leverage the XIAO MG24's ultra-low power capabilities. Implement sleep modes and optimize your code to minimize power consumption. The on-board battery charging circuit simplifies integration with rechargeable batteries.

### 4.4 Security Features

The EFR32MG24 SoC includes a hardware secure engine for enhanced security. When developing applications requiring data protection or secure boot, consult the Silicon Labs documentation for details on utilizing the Secure Vault functions.



Image 4.1: Examples of Seeed Studio XIAO applications, including Smart Home/IoT, TinyML, Robotics, and STEAM Education.

## 5. MAINTENANCE

The Seeed Studio XIAO MG24 is a robust development board, but proper handling and care will ensure its longevity.

- **Handling:** Always handle the board by its edges to avoid touching sensitive components, especially the pins.
- **Storage:** Store the board in an anti-static bag when not in use to protect it from electrostatic discharge.
- **Cleaning:** If necessary, gently clean the board with a soft, dry brush or compressed air. Avoid using liquids or abrasive materials.
- **Power Supply:** Ensure you use a stable 5V power supply via the USB-C port. Incorrect voltage can damage the board.

## 6. TROUBLESHOOTING

If you encounter issues with your XIAO MG24, consider the following troubleshooting steps:

- **Board Not Detected:**
  - Ensure the USB-C cable is fully inserted and functional.
  - Check if the correct board and port are selected in the Arduino IDE.
  - Try a different USB port or computer.
  - Reinstall the board package in the Arduino IDE.
- **Upload Errors:**
  - Verify your code for syntax errors.
  - Ensure the correct board and port are selected.
  - Press the reset button on the board before uploading, if necessary.
- **Connectivity Issues (BLE/Thread/Matter):**
  - Check your code for correct implementation of communication protocols.
  - Ensure the antenna is properly connected (if using an external UFL antenna).
  - Verify that other devices are within range and properly configured.

- **Power Issues:**

- Confirm the USB power source provides sufficient current.
- If using a battery, ensure it is charged and correctly connected to the battery charging circuit.

For further assistance, refer to the official Seeed Studio documentation and community forums.

## 7. SPECIFICATIONS

The following table details the technical specifications of the Seeed Studio XIAO MG24.

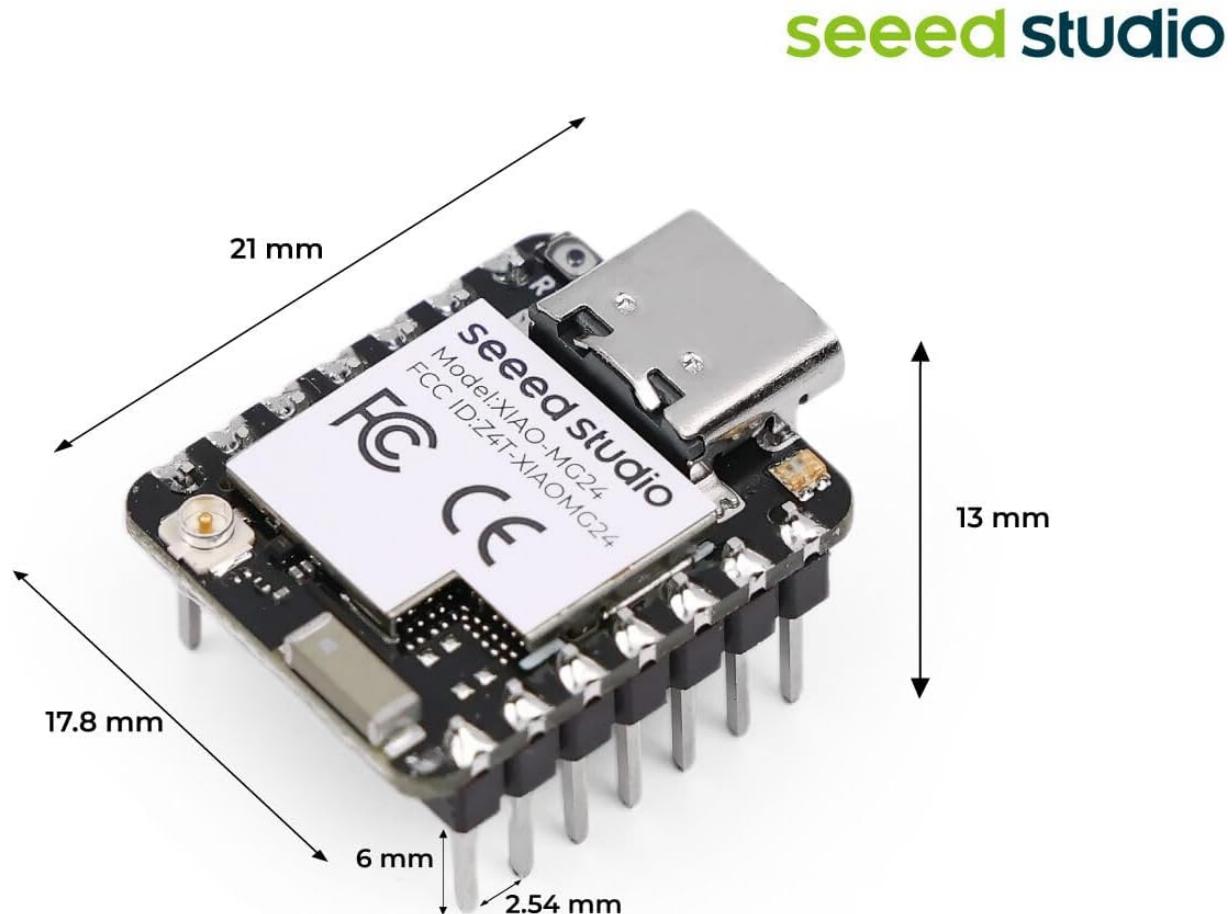


Image 7.1: Seeed Studio XIAO MG24 showing its compact dimensions of 21mm x 17.8mm.

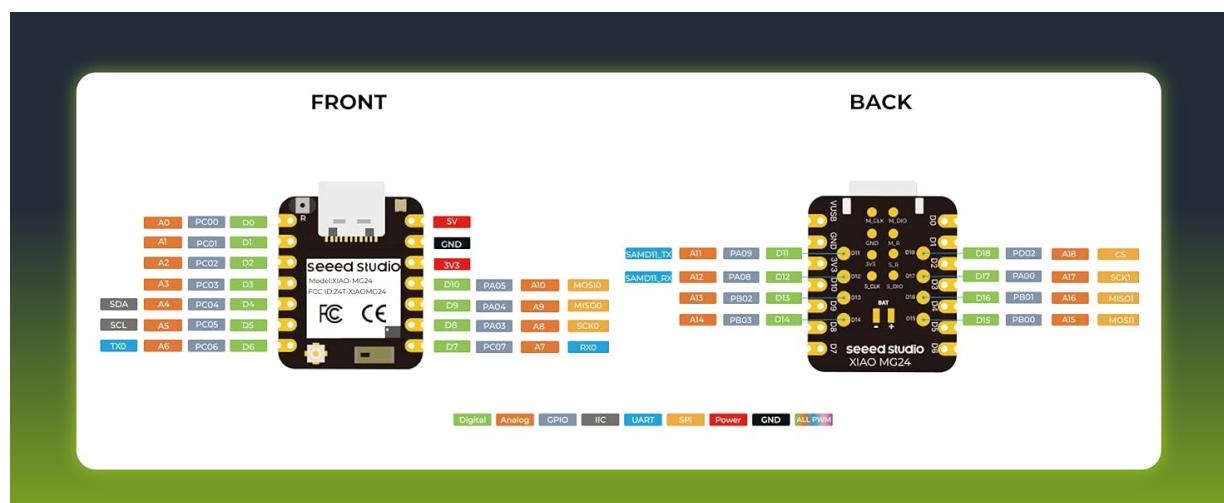


Image 7.2: Detailed product specifications table for the Seeed Studio XIAO MG24.

Parameter	XIAO MG24
Processor	Silicon Labs EFR32MG24, ARM Cortex-M33 @ 78MHz
Flash / RAM	1536KB + 4MB Onboard / 256KB
LEDs	1 User LED, 1 Power LED
Interfaces	22 Pins (11x Analog, 11x Digital, 1x I2C, 2x UART, 2x SPI, All PWM)
Buttons	1 Reset Button
Security Features	Hardware Encryption Acceleration, True Random Number Generator, ARM® TrustZone®, Secure Boot, Secure Debug Unlock
Low Power Consumption	Normal: 6.71mA, Sleep: 1.91µA
Software Compatibility	Arduino IDE
Antenna Support	Max 2.4GHz Ceramic Antenna: 4.97dBi
Operating Temperature	-20°C ~ 70°C
Dimensions	21 x 17.8 mm
Item Weight	0.634 ounces
Operating System	FreeRTOS

## 8. WARRANTY AND SUPPORT

For warranty information and technical support, please refer to the official Seeed Studio website or contact their customer service directly. Online resources, including documentation, tutorials, and community forums, are available to assist with project development and troubleshooting.

Visit the [Seeed Studio Store](#) for more products and information.

© 2025 Seeed Studio. All rights reserved.

## Related Documents - XIAO MG24



### [Seeed Studio XIAO Series Package and PCB Design Guide](#)

Detailed technical specifications and PCB design guidance for the Seeed Studio XIAO series of miniature development boards, including SAMD21, RP2040, nRF52840, nRF52840 Sense, and ESP32C3. Features include pinouts, land pattern dimensions, and integration information. Learn about Seeed Fusion services for PCB assembly.

	<p><a href="#">Seeed Studio XIAO ESP32C6 Product Details and Getting Started Guide</a></p> <p>Detailed information about the Seeed Studio XIAO ESP32C6, a powerful IoT development board featuring ESP32-C6 SoC, dual RISC-V processors, Wi-Fi 6, Bluetooth 5.3, Zigbee, and Thread. Includes features, specifications, and a getting started guide.</p>
	<p><a href="#">XIAO ESP32C3 Power Consumption Modes and Test Results</a></p> <p>A comprehensive guide to the power consumption modes of the Seeed Studio XIAO ESP32C3 microcontroller, detailing Active, Modem-sleep, Light-sleep, and Deep-sleep states with corresponding test results and configuration commands.</p>
	<p><a href="#">Getting Started with Seeed Studio Round Display for XIAO</a></p> <p>A comprehensive guide to setting up and using the Seeed Studio Round Display for XIAO, covering hardware preparation, software installation, and basic usage for this 1.28-inch touch screen expansion board.</p>
	<p><a href="#">SenseCAP Indicator User Manual - Seeed Studio</a></p> <p>Comprehensive user manual for the Seeed Studio SenseCAP Indicator, a 4-inch touch screen IoT development platform powered by ESP32-S3 and RP2040, featuring Wi-Fi, BLE, LoRa, and air quality monitoring capabilities.</p>
	<p><a href="#">Seeed Studio XIAO ePaper Display Board EE04 Technical Schematics</a></p> <p>Detailed technical schematics and block diagram for the Seeed Studio XIAO ePaper Display Board EE04. Covers power management, microcontroller integration, and e-ink display interfaces.</p>

Documents - Seeed Studio – XIAO MG24

seed studio		PRODUCT CHANGE NOTIFICATION		
PCN#	PCN TITLE	PCN DATE	PCN RELEASE DATE	1 May 20, 2005
PCN# 10000108 PCN TITLE: Replacing Part Numbers				
REVISION	CUSTOMER COMMENT			
TYPE OF CHANGE				
<input checked="" type="checkbox"/> Add new specification	<input type="checkbox"/> New Revision			
<input checked="" type="checkbox"/> Change existing specification	<input type="checkbox"/> Existing Revision			
<input type="checkbox"/> Remove specification	<input type="checkbox"/> End of life			
<input type="checkbox"/> Discontinue specification	<input type="checkbox"/> Other			
400001 PART NUMBERS				
Part Number	Name			
100000108	Sealed Lead to 1x100 5x500023			
100000109	Sealed Lead to 1x100 5x500024			
100000110	Sealed Lead to 1x100 5x500025			
100000111	Sealed Lead to 1x100 5x500026			
100000112	Sealed Lead to 1x100 5x500027			
100000113	Sealed Lead to 1x100 5x500028			
100000114	Sealed Lead to 1x100 5x500029			
100000115	Sealed Lead to 1x100 5x500030			
100000116	Sealed Lead to 1x100 5x500031			
100000117	Sealed Lead to 1x100 5x500032			
100000118	Sealed Lead to 1x100 5x500033			
100000119	Sealed Lead to 1x100 5x500034			
100000120	Sealed Lead to 1x100 5x500035			
100000121	Sealed Lead to 1x100 5x500036			
100000122	Sealed Lead to 1x100 5x500037			
100000123	Sealed Lead to 1x100 5x500038			
100000124	Sealed Lead to 1x100 5x500039			
100000125	Sealed Lead to 1x100 5x500040			
100000126	Sealed Lead to 1x100 5x500041			
100000127	Sealed Lead to 1x100 5x500042			
100000128	Sealed Lead to 1x100 5x500043			
100000129	Sealed Lead to 1x100 5x500044			
100000130	Sealed Lead to 1x100 5x500045			
100000131	Sealed Lead to 1x100 5x500046			
100000132	Sealed Lead to 1x100 5x500047			
100000133	Sealed Lead to 1x100 5x500048			
100000134	Sealed Lead to 1x100 5x500049			
100000135	Sealed Lead to 1x100 5x500050			
100000136	Sealed Lead to 1x100 5x500051			
100000137	Sealed Lead to 1x100 5x500052			
100000138	Sealed Lead to 1x100 5x500053			
100000139	Sealed Lead to 1x100 5x500054			
100000140	Sealed Lead to 1x100 5x500055			
100000141	Sealed Lead to 1x100 5x500056			
100000142	Sealed Lead to 1x100 5x500057			
100000143	Sealed Lead to 1x100 5x500058			
100000144	Sealed Lead to 1x100 5x500059			
100000145	Sealed Lead to 1x100 5x500060			
100000146	Sealed Lead to 1x100 5x500061			
100000147	Sealed Lead to 1x100 5x500062			
100000148	Sealed Lead to 1x100 5x500063			
100000149	Sealed Lead to 1x100 5x500064			
100000150	Sealed Lead to 1x100 5x500065			
100000151	Sealed Lead to 1x100 5x500066			
100000152	Sealed Lead to 1x100 5x500067			
100000153	Sealed Lead to 1x100 5x500068			
100000154	Sealed Lead to 1x100 5x500069			
100000155	Sealed Lead to 1x100 5x500070			
100000156	Sealed Lead to 1x100 5x500071			
100000157	Sealed Lead to 1x100 5x500072			
100000158	Sealed Lead to 1x100 5x500073			
100000159	Sealed Lead to 1x100 5x500074			
100000160	Sealed Lead to 1x100 5x500075			
100000161	Sealed Lead to 1x100 5x500076			
100000162	Sealed Lead to 1x100 5x500077			
100000163	Sealed Lead to 1x100 5x500078			
100000164	Sealed Lead to 1x100 5x500079			
100000165	Sealed Lead to 1x100 5x500080			
100000166	Sealed Lead to 1x100 5x500081			
100000167	Sealed Lead to 1x100 5x500082			
100000168	Sealed Lead to 1x100 5x500083			
100000169	Sealed Lead to 1x100 5x500084			
100000170	Sealed Lead to 1x100 5x500085			
100000171	Sealed Lead to 1x100 5x500086			
100000172	Sealed Lead to 1x100 5x500087			
100000173	Sealed Lead to 1x100 5x500088			
100000174	Sealed Lead to 1x100 5x500089			
100000175	Sealed Lead to 1x100 5x500090			
100000176	Sealed Lead to 1x100 5x500091			
100000177	Sealed Lead to 1x100 5x500092			
100000178	Sealed Lead to 1x100 5x500093			
100000179	Sealed Lead to 1x100 5x500094			
100000180	Sealed Lead to 1x100 5x500095			
100000181	Sealed Lead to 1x100 5x500096			
100000182	Sealed Lead to 1x100 5x500097			
100000183	Sealed Lead to 1x100 5x500098			
100000184	Sealed Lead to 1x100 5x500099			
100000185	Sealed Lead to 1x100 5x5000100			
100000186	Sealed Lead to 1x100 5x5000101			
100000187	Sealed Lead to 1x100 5x5000102			
100000188	Sealed Lead to 1x100 5x5000103			
100000189	Sealed Lead to 1x100 5x5000104			
100000190	Sealed Lead to 1x100 5x5000105			
100000191	Sealed Lead to 1x100 5x5000106			
100000192	Sealed Lead to 1x100 5x5000107			
100000193	Sealed Lead to 1x100 5x5000108			
100000194	Sealed Lead to 1x100 5x5000109			
100000195	Sealed Lead to 1x100 5x5000110			
100000196	Sealed Lead to 1x100 5x5000111			
100000197	Sealed Lead to 1x100 5x5000112			
100000198	Sealed Lead to 1x100 5x5000113			
100000199	Sealed Lead to 1x100 5x5000114			
100000200	Sealed Lead to 1x100 5x5000115			
100000201	Sealed Lead to 1x100 5x5000116			
100000202	Sealed Lead to 1x100 5x5000117			
100000203	Sealed Lead to 1x100 5x5000118			
100000204	Sealed Lead to 1x100 5x5000119			
100000205	Sealed Lead to 1x100 5x5000120			
100000206	Sealed Lead to 1x100 5x5000121			
100000207	Sealed Lead to 1x100 5x5000122			
100000208	Sealed Lead to 1x100 5x5000123			
100000209	Sealed Lead to 1x100 5x5000124			
100000210	Sealed Lead to 1x100 5x5000125			
100000211	Sealed Lead to 1x100 5x5000126			
100000212	Sealed Lead to 1x100 5x5000127			
100000213	Sealed Lead to 1x100 5x5000128			
100000214	Sealed Lead to 1x100 5x5000129			
100000215	Sealed Lead to 1x100 5x5000130			
100000216	Sealed Lead to 1x100 5x5000131			
100000217	Sealed Lead to 1x100 5x5000132			
100000218	Sealed Lead to 1x100 5x5000133			
100000219	Sealed Lead to 1x100 5x5000134			
100000220	Sealed Lead to 1x100 5x5000135			
100000221	Sealed Lead to 1x100 5x5000136			
100000222	Sealed Lead to 1x100 5x5000137			
100000223	Sealed Lead to 1x100 5x5000138			
100000224	Sealed Lead to 1x100 5x5000139			
100000225	Sealed Lead to 1x100 5x5000140			
100000226	Sealed Lead to 1x100 5x5000141			
100000227	Sealed Lead to 1x100 5x5000142			
100000228	Sealed Lead to 1x100 5x5000143			
100000229	Sealed Lead to 1x100 5x5000144			
100000230	Sealed Lead to 1x100 5x5000145			
100000231	Sealed Lead to 1x100 5x5000146			
100000232	Sealed Lead to 1x100 5x5000147			
100000233	Sealed Lead to 1x100 5x5000148			
100000234	Sealed Lead to 1x100 5x5000149			
100000235	Sealed Lead to 1x100 5x5000150			
100000236	Sealed Lead to 1x100 5x5000151			
100000237	Sealed Lead to 1x100 5x5000152			
100000238	Sealed Lead to 1x100 5x5000153			
100000239	Sealed Lead to 1x100 5x5000154			
100000240	Sealed Lead to 1x100 5x5000155			
100000241	Sealed Lead to 1x100 5x5000156			
100000242	Sealed Lead to 1x100 5x5000157			
100000243	Sealed Lead to 1x100 5x5000158			
100000244	Sealed Lead to 1x100 5x5000159			
100000245	Sealed Lead to 1x100 5x5000160			
100000246	Sealed Lead to 1x100 5x5000161			
100000247	Sealed Lead to 1x100 5x5000162			
100000248	Sealed Lead to 1x100 5x5000163			
100000249	Sealed Lead to 1x100 5x5000164			
100000250	Sealed Lead to 1x100 5x5000165			
100000251	Sealed Lead to 1x100 5x5000166			
100000252	Sealed Lead to 1x100 5x5000167			
100000253	Sealed Lead to 1x100 5x5000168			
100000254	Sealed Lead to 1x100 5x5000169			
100000255	Sealed Lead to 1x100 5x5000170			
100000256	Sealed Lead to 1x100 5x5000171			
100000257	Sealed Lead to 1x100 5x5000172			
100000258	Sealed Lead to 1x100 5x5000173			
100000259	Sealed Lead to 1x100 5x5000174			
100000260	Sealed Lead to 1x100 5x5000175			
100000261	Sealed Lead to 1x100 5x5000176			
100000262	Sealed Lead to 1x100 5x5000177			
100000263	Sealed Lead to 1x100 5x5000178			
100000264	Sealed Lead to 1x100 5x5000179			
100000265	Sealed Lead to			

Seeed Studio XIAO Series Packaging Upgrade - Product Change Notification

Product Change Notification from Seeed Studio detailing an upgrade to the packaging for the XIAO Series microcontroller modules. The new packaging includes a white waterproof shell, anti-static foam, and a certification information card.

lang:en score:40 filesize: 417.07 K page count: 7 document date: 2025-05-20



## [pdf] SAR Rating

SAR Exclusion Report Seeed Technology Co Ltd XIAOMG24 seeed studio reCamera 2002 Series Z4T Z4TXIAOMG24 xiaomg24

Report No. : EED32Q82089903 Page 1 of 8 RF Exposure Evaluation Report Product :  
**XIAO MG24** Trade mark : Seeed Studio Model/Type reference : **XIAO MG24, XIAO MG24** Sense Serial Number : N/A Report Number : EED32Q82089903 FCC ID : Z4T-XIAOMG24 Date of Issue Test Standards : Jan. 09, 2025 :

lang:en score:36 filesize: 370.41 K page\_count: 8 document\_date: 2025-01-09



[\[pdf\] Flyer](#)

XIAO Seed Studio tinyML Ready Platform The Series is a collection of thumb sized powerful microcontroller units MCUs tailor made for space conscious projects requiring high files seedestudio Product Flyers |||

Seeed Studio XIAO, tinyML-Ready Platform Add AI to Almost Everything The Seeed Studio XIAO Series is ... perfect for computer vision XIAO ESP32-C6 2.4GHz Wi-Fi 6, BLE 5.0, Zigbee, and Thread for Matter **XIAO MG24 XIAO MG24** Sense Super-low power for Super-low power board battery-powered Matter with

lang:en score:36 filesize: 5.97 M page\_count: 2 document\_date: 2025-03-05

Seed Technology Co., Ltd.

Federal Communications Commission  
Authorization and Evaluation Division  
7400 California Mills Road  
Coltville, MD 21245

Date: 2025-01-09

SUBJECT: FCC SDOC declaration for FCC ID: Z4T-XIAOMG24

To Whom it may concern,

We, as the producer of this project, would like to declare that this device has been tested according to the FCC requirement and found compliant with the following standards: FCC Part 15 Subpart B.

Product Name : XIAO MG24  
Brand Name : Seeed studio  
Model Name : XIAO MG24, XIAO MG24 Sense  
Testing Lab : Centre Testing International Group Co., Ltd

Sincerely,

Signature: 

Company Name : Seeed Technology Co., Ltd.  
Name : Albert Mao  
Job Title : R&D Director  
E-mail : albert.miao@seeed.cc  
Tel : 00 0755-33162243

### [pdf] Declaration of Conformity Test Report

Onlywmer FCC SDOC attestation Letter Seeed Technology Co Ltd XIAOMG24 seeed studio reCamera 2002 Series Z4T Z4TXIAOMG24 xiaomg24

Seeed Technology Co., Ltd. Federal Communications Commission Authorization and Evaluation Division 7 ... the following standards: FCC Part 15 Subpart B. Product Name Brand Name Model Name Testing Lab : **XIAO MG24** : Seeed studio : **XIAO MG24, XIAO MG24** Sense : Centre Testing International Group Co., Ltd ...  
lang:tl score:34 filesize: 111.63 K page\_count: 1 document date: 2025-01-09

CTI 华测检测

Report No.: EED32Q82089902 Page 1 of 35

**TEST REPORT**

Product : XIAO MG24  
Trade mark : Seeed Studio  
Model/Type reference : XIAO MG24, XIAO MG24 Sense  
Serial Number : N/A  
Report Number : EED32Q82089902  
FCC ID : Z4T-XIAOMG24  
Date of Issue : Jan. 09, 2025  
Test Standards : 47 CFR Part 15 Subpart C  
Test result : PASS

Prepared for:  
Seeed Technology Co., Ltd  
9F, G3 Building, TCL International E City, Zhongshanyuan Road, Nanshan District, Shenzhen

Prepared by:  
Centre Testing International Group Co., Ltd.  
Hongwei Industrial Zone, Bao'an District, Shenzhen, Guangdong, China  
TEL: +86-755-3368 3668  
FAX: +86-755-3368 3385

Reviewed by:  
Karen Tan Date: Jan. 09, 2025  
Aaron Ma Check No.: 76091504

Approved by:  
Fraser Li Date: Jan. 09, 2025  
Check No.: 76091504

Complaints: 400-0730-3222 | www.cti-cert.com | E-mail: info@cti-cert.com | Complaint call: 0755-33881705 | Complaint E-mail: complaint@cti-cert.com

### [pdf] Test Report

Zigbee Test Report Seeed Technology Co Ltd XIAOMG24 seeed studio reCamera 2002 Series Z4T Z4TXIAOMG24 xiaomg24

Report No.: EED32Q82089902 Page 1 of 35 TEST REPORT Product Trade mark Model/Type reference Serial Number Report Number FCC ID Date of Issue Test Standards Test result : **XIAO MG24** : Seeed Studio : **XIAO MG24, XIAO MG24** Sense : N/A : EED32Q82089902 : Z4T-XIAOMG24 : Jan. 09, 2025 : 47 CFR Part 15 ...  
lang:en score:33 filesize: 1.27 M page\_count: 33 document date: 2025-01-20

CTI 华测检测

Report No.: EED32Q82089901 Page 1 of 41

**TEST REPORT**

Product : XIAO MG24  
Trade mark : Seeed Studio  
Model/Type reference : Z4T-XIAOMG24, XIAO MG24 Sense  
Serial Number : N/A  
Report Number : EED32Q82089901  
FCC ID : Z4T-XIAOMG24  
Date of Issue : Jan. 09, 2025  
Test Standards : 47 CFR Part 15 Subpart C  
Test result : PASS

Prepared for:  
Seeed Technology Co., Ltd  
9F, G3 Building, TCL International E City, Zhongshanyuan Road, Nanshan District, Shenzhen

Prepared by:  
Centre Testing International Group Co., Ltd.  
Hongwei Industrial Zone, Bao'an District, Shenzhen, Guangdong, China  
TEL: +86-755-3368 3668  
FAX: +86-755-3368 3385

Reviewed by:  
Karen Tan Date: Jan. 09, 2025  
Aaron Ma Check No.: 76091504

Approved by:  
Fraser Li Date: Jan. 09, 2025  
Check No.: 76091504

Complaints: 400-0730-3222 | www.cti-cert.com | E-mail: info@cti-cert.com | Complaint call: 0755-33881705 | Complaint E-mail: complaint@cti-cert.com

### [pdf] Test Report

BLE Test Report Seeed Technology Co Ltd XIAOMG24 seeed studio reCamera 2002 Series Z4T Z4TXIAOMG24 xiaomg24

Report No.: EED32Q82089901 Page 1 of 41 TEST REPORT Product Trade mark Model/Type reference Serial Number Report Number FCC ID Date of Issue Test Standards Test result : **XIAO MG24** : Seeed Studio : **XIAO MG24, XIAO MG24** Sense : N/A : EED32Q82089901 : Z4T-XIAOMG24 : Jan. 09, 2025 : 47 CFR Part 15 ...  
lang:en score:32 filesize: 1.43 M page\_count: 36 document date: 2025-01-20

## Seeed Studio XIAO Series Packaging Upgrade - Product Change Notification

Product Change Notification (PCN) from Seeed Studio detailing packaging upgrades for the XIAO series of microcontrollers. This notification covers changes to the product packaging, including a new waterproof shell, anti-static foam, and updated certification information, affecting numerous part numbers.

lang:en score:31 filesize: 417.07 K page count: 7 document date: 2025-05-20

	
<b>Certificate of Conformity</b>	
Certificate No.: AT2005150006-010C	
Applicant	: Beest Technology Co., Ltd.
Address	: 5/F Building, TCL International E City, Zhongshanhu Road, Nanhai District, Foshan City, Guangdong Province, P.R.C.
Manufacturer	: Beest Technology Co., Ltd.
Address	: 5/F Building, TCL International E City, Zhongshanhu Road, Nanhai District, Foshan City, Guangdong Province, P.R.C.
Factory	: Shenzhen Xinkin Technology Co.Limited
Address	: P5, Building B17, Hengtong Industrial City, No. 739 Zhouhu Rd, Bavan Town, Shenzhen City, Guangdong, P.R.C.
Product	: Beest Router X1000#01
Trade Mark	: beest studio
Tested Style No.	: Sesst XIAO SANDII
Series models	: Please refer to next page!
Test Standard(s)	: IEC 62311-1:2005 + A1: 2013 / IEC 62311-4:2011+A1:2017 / IEC 62311-6:2015 / IEC 62311-7:2015 / IEC 62312-1:2013 / IEC 62312-4:2011 / IEC 62312-5:2013 / IEC 62312-6:2013 / IEC 62312-7:2013
Report No.	: AT2005150006-010

The submitted products have been tested by us with the listed standards and found in compliance with the following Directives and Standards:

(EU) 2002/95 amending Directive 89/336/EEC

The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

The tests were performed in normal operating mode. The test results apply only to the particular sample tested and to the specific tests carried out. This certificate applies specifically to the sample investigated in the test and does not imply that other products of the same type are in compliance.

The RoHS marking, as shown below, can be affixed on the product after preparation of necessary technical documentation.

Other relevant Directives have to be observed.



Date of Issue: May 25, 2005

Shenzhen Ailite Testing Technology Co., LTD.

Ailite Testing Technology Co., LTD. is a subsidiary of Shenzhen Ailite Industrial Measuring (Guangdong) Co., Ltd.

[Seeed Studio XIAO Product Compliance Certificate - RoHS](#)

This document certifies that various Seeed Studio XIAO series development boards comply with the European Union's Restriction of Hazardous Substances (RoHS) Directive 2011/65/EU, as amended by (EU) 2015/863. Tested according to IEC 62321 standards.

lang:en score:30 filesize: 572.41 K page count: 3 document date: 2025-05-23

TCB

GRANT OF EQUIPMENT AUTHORIZATION  
Certification  
Issued Under the Authority of the  
Federal Communications Commission  
By:

Tesco Engineering, Inc.  
13148 NW 80th Drive Suite 400  
Aptachua, FL 33175

Date of Grant: 01/09/2025  
Application Date: 01/09/2025

Seeed Technology Co., Ltd.  
9F, G3 Building, TCL International E City,  
Zhongshanyuan Road, Nanshan District  
Shenzhen, 518055  
China

Attention: Albert Miao, R&D Director

**NOT TRANSFERABLE**  
EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID  
ONLY for the equipment identified herein for use under the Commission's Rules and  
Regulations listed below.

FCC IDENTIF. NO.: ZTEXIAOMG24  
Name of Granter: Seeed Technology Co., Ltd.  
Equipment Class: Digital Transmission System  
Notes: seeed studio recamera 2022 Series

Grant Notes: FCC Rule Part 15C  
FCC Rule Part 15C  
FCC Rule Part 15C

Output Power: 2405.0 - 2480.0  
2405.0 - 2480.0  
2405.0 - 2480.0

Frequency Reference: 0.001  
0.001  
0.0008

Emission Descriptor: 0.0008  
0.0008  
0.0008

Output Power listed is conducted.



### Seeed Studio XIAO MG24 FCC Authorization and Declaration of Conformity

Official FCC Grant of Equipment Authorization and Declaration of Conformity for the Seeed Studio XIAO MG24, detailing compliance with FCC Part 15 rules.

lang:en score:29 filesize: 1.92 M page\_count: 3 document date: 2025-02-05

TCB

GRANT OF EQUIPMENT AUTHORIZATION  
Certification  
Issued Under the Authority of the  
Federal Communications Commission

Tesco Engineering, Inc.  
13148 NW 80th Drive Suite 400  
Aptachua, FL 33175

Date of Grant: 01/09/2025  
Application Date: 01/09/2025

Seeed Technology Co., Ltd.  
9F, G3 Building, TCL International E City,  
Zhongshanyuan Road, Nanshan District  
Shenzhen, 518055  
China

Attention: Albert Miao, R&D Director

**NOT TRANSFERABLE**  
EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID  
ONLY for the equipment identified herein for use under the Commission's Rules and  
Regulations listed below.

FCC IDENTIF. NO.: ZTEXIAOMG24  
Name of Granter: Seeed Technology Co., Ltd.  
Equipment Class: Digital Transmission System  
Notes: seeed studio recamera 2022 Series

Grant Notes: FCC Rule Part 15C  
FCC Rule Part 15C  
FCC Rule Part 15C

Output Power: 2405.0 - 2480.0  
2405.0 - 2480.0  
2405.0 - 2480.0

Frequency Reference: 0.001  
0.001  
0.0008

Emission Descriptor: 0.0008  
0.0008  
0.0008

Output Power listed is conducted.



### [pdf] Declaration of Conformity

TCB Seeed StudioXIAO MG24 Model Number XIAO Sense Brand Name Studio Report EED32Q820898 is herewith confirmed to comply with the 102010690 FCCfiles seeedstudio Certificate documents certificate 102010690 FCC |||

TCB GRANT OF EQUIPMENT AUTHORIZATION Certification Issued Under the Authority of the Federal Commun ... o., Ltd 9F, G3 Building, TCL International E City, Zhongshanyuan Road, Nanshan District, Shenzhen : **XIAO MG24 : XIAO MG24, XIAO MG24** Sense : Seeed Studio : DC 5V : EED32Q820898 Test Standards 47 CFR...

lang:en score:29 filesize: 1.92 M page\_count: 3 document date: 2025-02-05



### Seeed Studio 2025 AI

Seeed Studio 2025 AI

lang:en score:28 filesize: 17.06 M page\_count: 100 document date: 2025-04-29



## [pdf] Specifications Documentation Declaration of Conformity

Microsoft Word 18415 25 TIMCO MIC Radio Certificate Seven Song 102010610 TELE files seeedstudio

Seeed documents certificate |||

AN IIA COMPANY JAPAN MIC TYPE CERTIFICATION CERTIFICATE NUMBER

217-252012 CERTIFICATE HOLDER: Com ... hen PRODUCT DESCRIPTION

Product Name : Trademark/Trade Name : Model Number s : Category : **XIAO MG24**

Seeed Studio **XIAO MG24, XIAO MG24** Sense Unlicensed Device Act 38-2-2.1.1

Based on the e...

lang:en score:26 filesize: 230.01 K page\_count: 2 document date: 2025-01-22



## [pdf] Specifications Documentation Declaration of Conformity

Microsoft Word 18415 25 TIMCO MIC Radio Certificate Seven Song 102010590 TELEcakizukidensi goodsaffix TELEC |||

AN IIA COMPANY JAPAN MIC TYPE CERTIFICATION CERTIFICATE NUMBER

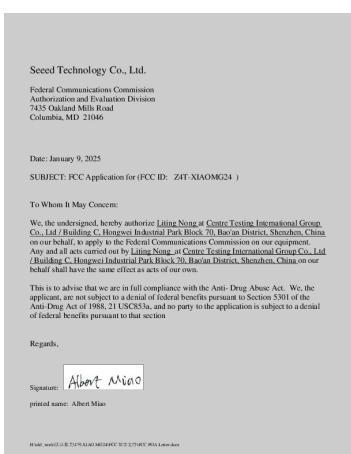
217-252012 CERTIFICATE HOLDER: Com ... hen PRODUCT DESCRIPTION

Product Name : Trademark/Trade Name : Model Number s : Category : **XIAO MG24**

Seeed Studio **XIAO MG24, XIAO MG24** Sense Unlicensed Device Act 38-2-2.1.1

Based on the e...

lang:en score:26 filesize: 230.01 K page\_count: 2 document date: 2025-01-22



## [pdf]

TIMCO Engineering Inc Valued Sony Customer Authority Letter Seeed Technology Co Ltd XIAOMG24

seeed studio reCamera 2002 Series Z4T Z4TXIAOMG24 xiaomg24

Seeed Technology Co., Ltd. Federal Communications Commission Authorization and Evaluation Division 7 ... al benefits pursuant to that section Regards, Signature:

printed name: Albert Miao H: old\_work 179. **XIAO MG24** FCC FCC POA Letter.docx ...

lang:en score:21 filesize: 34.66 K page\_count: 1 document date: 2025-01-09



## [Seeed Studio 2025 Product Catalog: AI Hardware, Edge Computing, and IoT Solutions](#)

Explore the Seeed Studio 2025 Product Catalog featuring AI hardware, sensor networks, edge computing solutions (NVIDIA Jetson, Raspberry Pi), SenseCraft software, and IoT devices. Discover open-source innovation for developers and industries.

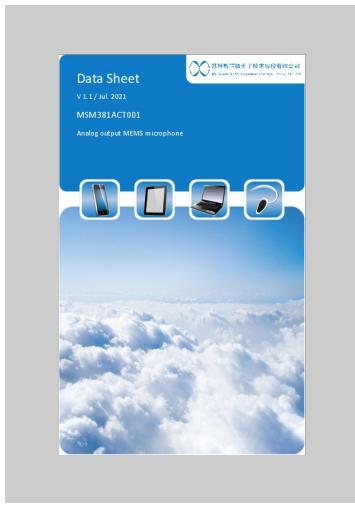
lang:en score:19 filesize: 16.48 M page\_count: 99 document date: 2025-03-06



## [Seeed Studio 2025 Catálogo de Productos: Hardware de IA, IoT y Edge Computing](#)

Explore el Catálogo de Productos 2025 de Seeed Studio, presentando hardware de IA de vanguardia, soluciones IoT, computación en el borde, sensores, placas de desarrollo y software. Descubra innovaciones para industrias y creadores.

lang:es score:18 filesize: 13.51 M page\_count: 99 document date: 2025-04-07



## [\[pdf\] Datasheet Declaration of Conformity](#)

MSP40 Hongyuan Yang Seeed Studio Analog Microphone MSM381ACT001 datasheet XIAO MG24

Sense built in Sensor Wiki 312030602 MEMSensing Datasheet files seeedstudio wiki mg24 mic |||

Data Sheet V 1.1 / Jul. 2021 MSM381ACT001 Analog output MEMS microphone

MSM381ACT001 Analog output MEMS microphone GENERAL DESCRIPTION

MSM381ACT001 is an omnidirectional, Top-ported, analog output MEMS microphone. It has high performance and reliability. MSM381ACT001 is available in a thin 2.75 m...

lang:en score:17 filesize: 1.04 M page\_count: 11 document date: 2021-07-09