seeed studio

INDUSTRIAL PRODUCT DATASHEET

# XIAO 0.96" IPS Display(ESP32-S3)

The XIAO 0.96" IPS Display(ESP32-S3) combines a 0.96-inch 80 × 160 IPS display, PDM microphone, 6-axis IMU, two buttons, Wi-Fi, Bluetooth, 8 MB PSRAM, and 16 MB Flash in a board powered by XIAO ESP32-S3 Plus.

| SKU | UPDATED | PRICE |
| --- | --- | --- |
| 100037468 | 2026-09-28 01:04:28 | $15.90(Excl. VAT) |



# Overview




The XIAO 0.96" IPS Display(ESP32-S3) is an ultra-compact smart device board with a width of only 18.8 mm, integrating a 0.96-inch 80 × 160 IPS display, motion sensing, audio input, physical buttons, battery support, Wi-Fi, and Bluetooth connectivity. It targets applications such as Mini Desktop Dashboard, AI Voice Assistant & Agent Terminal Prototype, Smart Home Touch Controller, and Digital Pet and Interactive Toy.

# Key Features

- **An Ultra-Compact Smart Device Board**
  With a board width of only 18.8 mm, this is the most compact model in the lineup. It brings display, motion sensing, audio input, physical buttons, battery support, Wi-Fi, and Bluetooth connectivity into a form factor that remains as narrow as the XIAO board itself, making it easier to build compact enclosures, badges, pendants, and portable devices.

- **Essential Information on a Tiny Color Display**
  The 0.96-inch 80 × 160 IPS display is ideal for showing essential information such as connection status, sensor readings, counters, icons, battery voltage, notifications, and simple menus. It gives tiny projects a clear visual interface while keeping the overall device extremely compact.

- **Voice, Motion, and Two-Button Interaction**
  The onboard PDM microphone lets your project react to sound and capture audio data, while the 6-axis IMU detects orientation, shaking, flipping, and movement. Two physical buttons provide simple and reliable user input, allowing you to build interactive devices without adding external modules.

- **Wi-Fi and Bluetooth in a 17.8 mm-Wide Form Factor**
  Powered by XIAO ESP32-S3 Plus, this compact board combines a dual-core processor running at up to 240 MHz with Wi-Fi, Bluetooth Low Energy, 8 MB PSRAM, and 16 MB Flash. This makes it possible to build tiny connected dashboards, notification devices, sensor nodes, and portable interfaces while keeping the hardware footprint small.

# Product Gallery

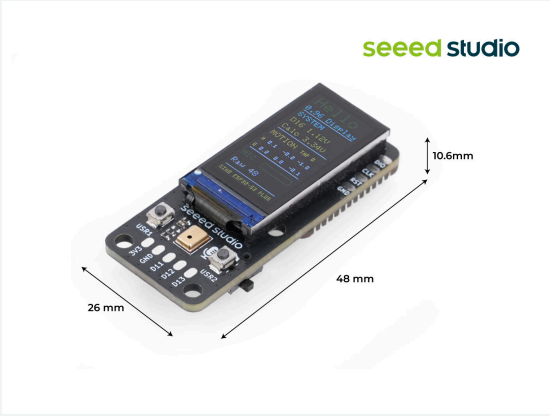










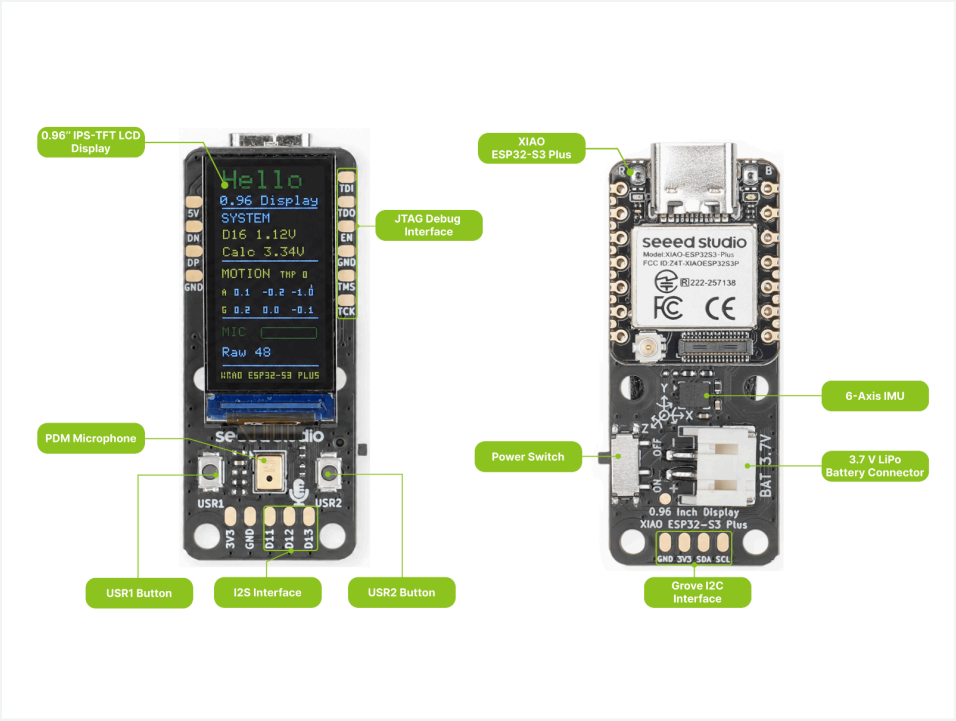



## Specification

| Specification | XIAO 1.47" IPS Display(ESP32-S3) | XIAO 1.14" IPS Display(ESP32-S3) | XIAO 0.96" IPS Display(ESP32-S3) |
|---|---|---|---|

| | | | |
|---|---|---|---|
| Positioning | Touch & Full Interaction | Sensing & Expansion | Ultra-Compact |
| Core Controller | Seeed Studio XIAO ESP32-S3 Plus | | |
| Processor | ESP32-S3R8, Dual-Core, up to 240 MHz | | |
| Memory | 8 MB PSRAM + 16 MB Flash | | |
| Wireless | 2.4 GHz Wi-Fi + BLE 5.0 | | |
| Display | 1.47" IPS TFT | 1.14" IPS TFT | 0.96" IPS TFT |
| Resolution | 172 × 320 | 135 × 240 | 80 × 160 |
| Display Driver | JD9853A | ST7789 | ST7789 |
| Touch | Capacitive Touch | No | No |
| 6-Axis IMU | Yes | | |
| PDM Digital Microphone | Yes | | |
| MicroSD Card Slot | Yes | No | No |
| Grove I2C Connector | No | Yes | No |
| User Buttons | 2 | 3 | 2 |
| Battery Connector | 2-pin JST, 3.7 V LiPo | | |
| Battery Monitoring | Battery voltage monitoring via D16 ADC; battery level can be estimated from the measured voltage.<br>Battery status detection is not supported. | | |
| Expansion Interfaces | 1x I2C Interface<br>1x I2S Interface<br>1x JTAG Interface<br>2x User Button Interface | 1x I2C Interface<br>1x I2S Interface<br>1x JTAG Interface<br>3x User Button Interface | 1x I2C Interface<br>1x I2S Interface<br>1x JTAG Interface<br>2x User Button Interface |
| Board Size | 26.4 × 51.4 × 12.6 mm | 26 × 48 × 10.6 mm | 18.8 × 43.6 × 10.6 mm |
| Best For | Touch UI, portable HMI, local media & data logging | Sensor dashboards, Grove projects, physical controllers | Tiny IoT devices, wearables, status displays |

# Hardware Overview




# Applications

- **Mini Desktop Dashboard**
- **AI Voice Assistant & Agent Terminal Prototype**
- **Smart Home Touch Controller**
- **Digital Pet and Interactive Toy**

## Part List

| | |
|---|---|
| XIAO 0.96" IPS Display(ESP32-S3) | ×1 |
| 2.4GHz FPC Antenna A-02 for XIAO ESP32-S3 | ×1 |

## Compliance & Logistics

| | |
|---|---|
| HSCODE | 8517629990 |
| USHSCODE | 8517620010 |
| UPC | |
| EUHSCODE | 8517180000 |
| COO | CHINA |

# Resource Links

- https://www.seeedstudio.com/0-96-Inch-Display-Powered-by-XIAO-ESP32-S3-Plus-p-6993.html
- Wiki-XIAO 0.96" IPS Display(ESP32-S3) Resources
- 3D-Printed Enclosure for XIAO 0.96" Display — Designed by Gokul

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