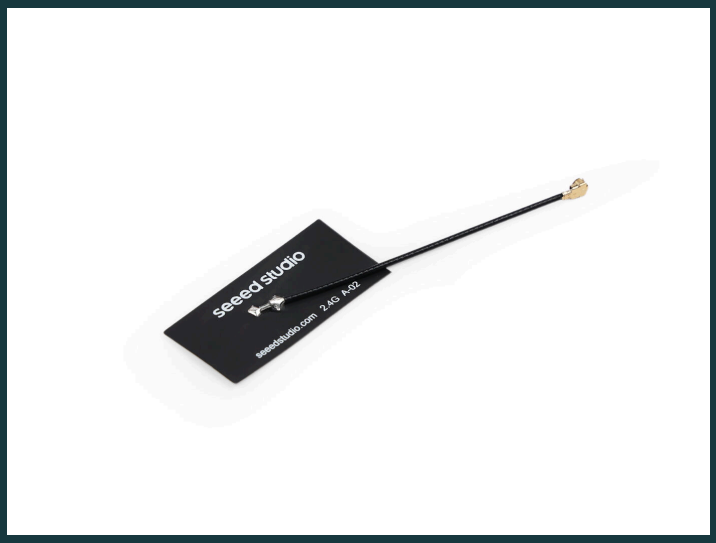
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INDUSTRIAL PRODUCT DATASHEET

2.4GHz FPC Antenna A-02 for XIAO ESP32-S3

A 2.4 GHz FPC antenna for XIAO ESP32-S3 and XIAO ESP32-S3 Sense, with a 37.4 × 17.5 mm radiator, 65 mm cable and first-generation I-PEX connector.

SKU	UPDATED	PRICE
318020968	2026-11-17 03:26:48	$0.50(Excl. VAT)



Overview



A 2.4 GHz FPC antenna for XIAO ESP32-S3 and XIAO ESP32-S3 Sense, with a 37.4 × 17.5 mm radiator, 65 mm cable and first-generation I-PEX connector. Use it as a replacement, spare, or for enclosure integration. Supports 2400–2500 MHz only; not for 5 GHz Wi-Fi.

Key Features

01 **4 GHz replacement or spare**

FPC Antenna A-02 for XIAO ESP32-S3 and XIAO ESP32-S3 Sense Wi-Fi/Bluetooth projects. Operating band: 2400–2500 MHz; this is not a 5 GHz antenna.

02 **Verified RF performance**

Peak gain of 1.16 dBi at 2500 MHz, maximum measured efficiency of 61.84% at 2500 MHz, and 50 Ω nominal impedance. Gain is 0.32 dBi at 2450 MHz; RF performance varies with frequency and enclosure layout.

03 **Enclosure integration**

A 37.4 × 17.5 mm FPC radiator with a 65 mm, Ø1.13 mm coaxial cable and an I-PEX 1 connector.

04 **Disconnect power before attaching the antenna. Align the first-generation I-PEX plug with the matching socket, then press gently straight down. Do not force a mismatched or angled connector.**

05 **Route the cable with gentle bends and leave slack at the connector. Do not pull on the cable or sharply crease the FPC.**

06 **Keep the radiating section away from metal, batteries, and large ground planes where practical. Check signal strength in the final enclosure before securing the antenna.**

07 **Recommended uses**

compact Wi-Fi/Bluetooth nodes, enclosure integration, and replacement or spare antennas. No fixed communication distance is guaranteed.

Product Gallery

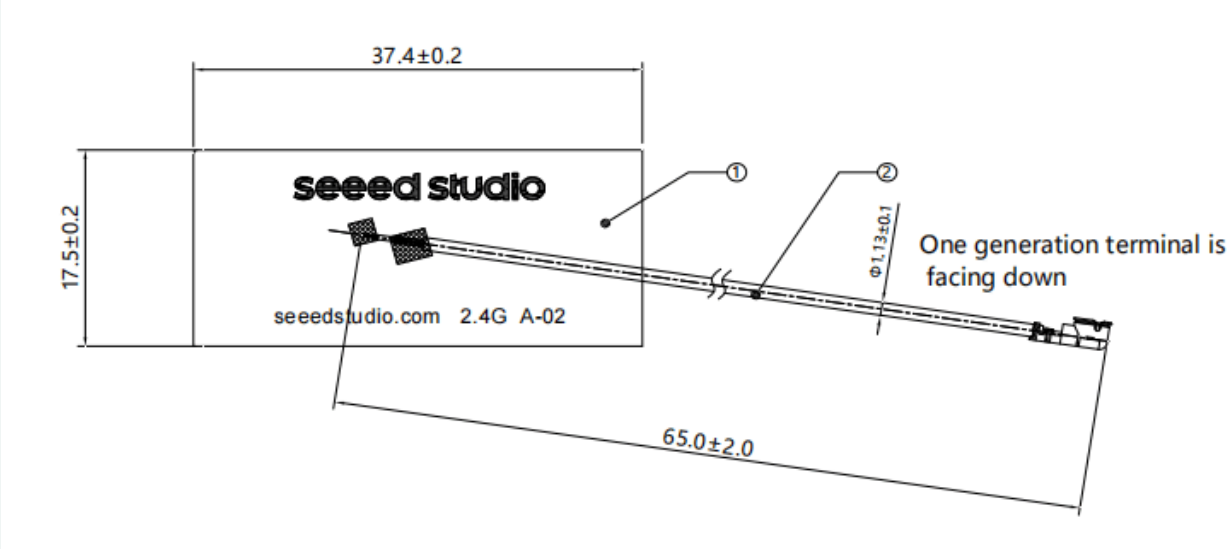








Hardware Overview



Applications

- **Industrial Sensor Networks**
- **Agricultural Telemetry Systems**
- **Drone Swarm Relays**
- **Embedded IoT Gateways**

Resource Links

- https://www.seeedstudio.com/2-4GHz-FPC-Antenna-1-16dBi-for-XIAO-ESP32S3-p-6440.html
- Datasheet

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