

INDUSTRIAL PRODUCT DATASHEET

reCamera 2002 Base Board WiFi HaLow

Wi-Fi HaLow expansion board for reCamera 2002 series with up to 1 km range, enhanced signal penetration, and stable 720p video streaming.

SKU	UPDATED	PRICE
100063704	2026-08-24 07:20:07	\$39.90(Excl. VAT)



Overview



The reCamera 2002 Base Board WiFi HaLow is a modular expansion board for the reCamera 2002, reCamera 2002w, and reCamera 2002 HQ PoE that adds Wi-Fi HaLow connectivity in the 902–928 MHz band, delivering up to 1 km range in open environments and stable 720p video streaming at up to 32.5 Mbps. It supports 12V DC, 5V USB Type-C, and 3.7V Li-ion power inputs, and includes a 4-pin to 5V USB Type-C adapter and SMA antenna connector for flexible deployment.

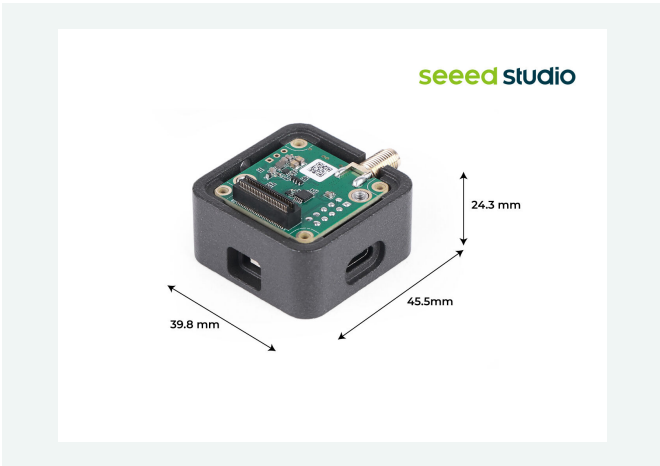
Key Features

- **Long Wireless Range:** Operates in the **902–928 MHz** band, delivering a stable connection of up to **1 km in open environments**
- **Superior Signal Penetration:** Designed specifically for IoT deployments, providing enhanced penetration through walls, trees, and other obstacles to ensure reliable communication in complex outdoor and industrial environments.
- **HD Video Transmission:** Supports data rates of up to **32.5 Mbps** with an **8 MHz** channel bandwidth, enabling stable and smooth **720p video streaming** to remote endpoints over long distances.
- **Modular Expansion Design:** A dedicated expansion board for the **reCamera 2002 series**, adding **Wi-Fi HaLow** connectivity to existing AI cameras and enabling remote wireless deployment of edge AI solutions.
- **Flexible Power Options:** Supports **12V DC input**, **5V USB Type-C**, and **3.7V Li-ion battery** power supplies, making it compatible with batteries, solar panels, and various other power sources.
- **Adapter & Expansion Interface:** Includes a **4-pin to 5V USB Type-C adapter**, allowing seamless integration with our **waterproof enclosure** and **external high-gain antenna** for enhanced deployment flexibility.

Note:

- **Coverage Notice:** The advertised **maximum transmission range of 1 km** is measured under ideal line-of-sight (LOS) conditions with no obstructions. Actual coverage may vary depending on environmental interference, antenna gain, and physical obstacles.
- **Antenna Recommendation:** The product features an **SMA antenna connector**. For optimal performance, the use of an appropriately rated external antenna is recommended. The included short antenna is sufficient for most application scenarios.
- **Compatibility Notice:** This expansion board is specifically designed for **reCamera 2002**, **reCamera 2002w**, and **reCamera 2002 HQ PoE**. It is **not compatible** with products such as **reCamera Pro** or **reCamera Gimbal**.

Product Gallery

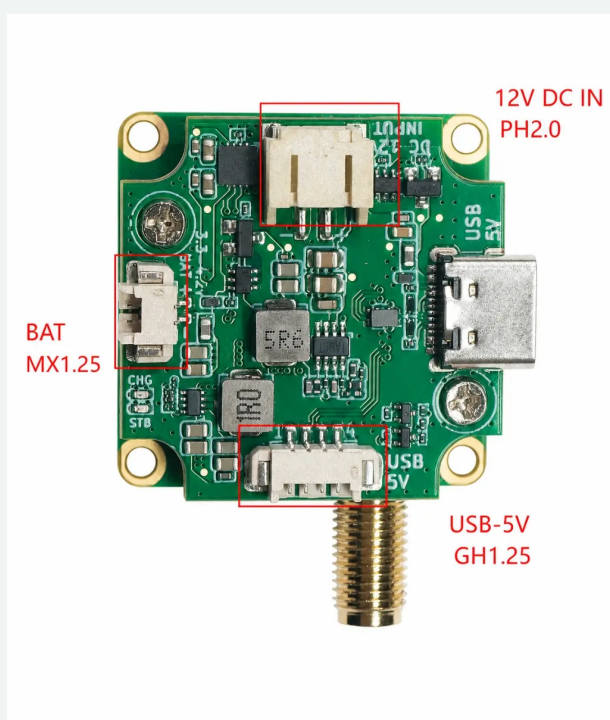


Specification

WLAN Protocol	IEEE 802.11ah (WiFi HaLow)
Wi-Fi Frequency Band	902 - 928 MHz
Encryption Mode	WPA3-SAE, OWE, No encryption

Wi-Fi Modulation Mode	Support OFDM, BPSK, QPSK, 16QAM, 64QAM
Wi-Fi Operating Mode	STA
Bandwidth	2 MHz, 4 MHz, and 8 MHz modes.
Maximum Data Rate	Up to 32.5 Mbps (theoretical maximum)
Maximum Transmission Range	Up to 1 km in open environments
Antenna Interface	SMA or I-PEX (external antenna)
Maximum Transmit Power (Theoretical)	27 dBm
Power Supply	12V DC, USB Type-C, or 3.7V Li-ion battery
Operating Temperature	-20°C to 50°C
Certification	FCC
Compatible Gateways	HaLowLink, Raspberry Pi HaLow module
Wi-Fi Antenna	1 x 1

Hardware Overview



Part List

reCamera 2002 Base Board WiFi HaLow	x1
External Antenna	x1
USB Type-C Extension Cable	x1
Screws	x4

Compliance & Logistics



HSCODE	8517799000
USHSCODE	8517690000
UPC	
EUHSCODE	8517180000
COO	CHINA

FCC Requirement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

15.21

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses, and can radiate radio frequency energy.

If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Resource Links

- <https://www.seeedstudio.com/reCamera-2002-Base-Board-with-WiFi-HaLow-p-6905.html>
- [Quectel FGH100M-H Datasheet](#)
- [Quick Start Links](#)

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