seeed studio

INDUSTRIAL PRODUCT DATASHEET

reCamera 2002 Sensor Board GC2053

reCamera 2002 Sensor Board GC2053 enables customizable-lens AI vision for heatmapping, remote monitoring, parking, and gesture control applications.

SKU	UPDATED	PRICE
100041077	2026-10-16 10:52:36	$29.90(Excl. VAT)



Overview



The reCamera 2002 Sensor Board GC2053 is an interchangeable-lens sensor board for reCamera 2002 series, offering a 93° default lens and optional 16°, 22°, 102°, and 120° lenses. It must be used with a reCamera Core Board and Base Board, and supports applications such as real-time heatmap dashboards with Grafana, AI remote wireless monitoring over Wi-Fi HaLow, AI parking management, and gesture-based game control.

Key Features

Selection Guide

reCamera series currently offers two sensor boards OV5647 and GC2053. OV

5647 is the default Sensor Board for reCamera 2002(w) 8/64GB. These two boards allow you to choose freely based on your application needs.

OV5647（S101） — Choose when you need:

- Higher resolution (5MP)
- 65° FOV for focused, close-up scenes.

GC2053（S4） — Choose when you need:

- Install different lens: 93°(default), 16°, 22°, 102°, 120°

Here is a comparison of imaging results of two sensor boards:

reCamera Sensor Board GC2053 must be used with Core Board and the Base Board. You may purchase any reCamera model, for example the reCamera 2002 (W) 8/64GB, and install GC2053 Sensor Board onto the finished reCamera unit to extend functionality.

Alternatively, you may purchase the Core Board and Base Board separately and assemble a reCamera yourself.

You may choose reCamera units:

reCamera 2002w 64GB- Open Source AI Camera

reCamera 2002 64GB-Open Source AI Camera

reCamera 2002w 8GB-Open Source AI Camera

reCamera 2002 8GB-Open Source AI Camera

Or individual core boards:

reCamera 2002w Core Board 64GB with Aluminium Frame reCamera 2002 Core Board 64GB with Aluminium Frame reCamera 2002w Core Board 8GB with Aluminium Frame reCamera 2002 Core Board 8GB with Aluminium Frame

with

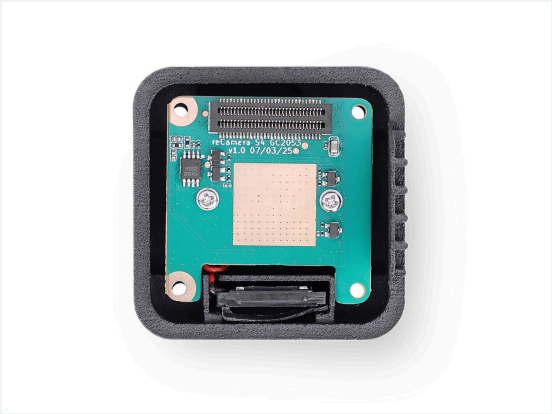
reCamera 2002 Base Board with PoE

reCamera's dimensions and design are fully open source. You are free to **design your own sensor board and base board**. You may also submit feature requests - feel free to reach out to us on GitHub: **GitHub · Where software is built**

Product Gallery













Specification

Sensor Board	S101 (default on reCamera 2002)	S4_GC2053 (default on reCamera HQ PoE)
Sensor	OV5647	GC2053

Resolution	5M(2592*1944) Pixels	2MPixels
Chip	1/4" CMOS Sensor	1/2.9'' CMOS Sensor
Pixel Size	1.4μm	2.7μm
Output Format	RAW 10	
Maximum Frame Rate	full size: 15fps	full size: 30fps
Aperture	F2.8	
Equivalent Focal Length	3.46mm	2.9mm
Field of View	65°	DFOV 93° HFOV 84° VFOV 54°
Distortion	<1%	
Lens structure	5P	

Applications

- **Integration of Real-time Heatmap with Grafana Data Dashboard:** The project conducts target detection using the YOLO11n model built into reCamera. It performs fuzzy processing on personnel targets and displays a heat map effect. All of this is handled locally within reCamera! And reCamera will send the detected data to the locally running Influxdb database. Then, Grafana reads the data from the Influxdb database to display real-time data dashboards.
- **AI Remote Wireless Monitoring System Based on reCamera and Wifi Halow:** An AI-based remote wireless monitoring system using Wi-Fi HaLow. It combines edge AI vision with long-range, low-power wireless communication to enable real-time detection, data transmission, and monitoring in remote or infrastructure-limited environments such as farms, factories, and outdoor sites.
- **AI Parking Management with reCamera:** This project uses Seeed's reCamera to detect parking slot occupancy in real-time. It features multi-frame stabilization to avoid flickering and displays results (free/occupied counts) directly on the video stream. The entire workflow runs automatically on the device via a pre-configured Node-RED setup.
- **Play Subway Surfers with reCamera HQ PoE:** Using its built-in pose detection model, reCamera can recognize your hand and body movements in real time and convert them into game actions, no controllers, no wearables, just pure gesture play. Wave your hand to jump, raise your arm to attack, or lean left and right to dodge obstacles.

Part List

reCamera Sensor Board GC2053	x1
plastic Cover	x1
M2x10 screw	x4

Compliance & Logistics

HSCODE	8529904900
USHSCODE	8525895050
UPC	
EUHSCODE	8517600000
COO	CHINA

Resource Links

- https://www.seeedstudio.com/reCamera-2002-Sensor-Board-GC2053-p-6556.html
- reCamera GC2053 document
- reCamera poe document
- reCamera Flyer
- reCamera Flyer - CN

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