seeed studio

INDUSTRIAL PRODUCT DATASHEET

reCamera 2002 Core Board 8GB with Aluminium Frame

Open-source reCamera 2002 Core Board 8GB with Aluminium Frame featuring GC2053 sensor and PoE base board for edge AI applications such as real-time heatmaps, wireless monitoring, parking management, and gesture play.

SKU	UPDATED	PRICE
101991223	2026-10-17 01:03:04	$65.90(Excl. VAT)



Overview



The reCamera 2002 Core Board 8GB with Aluminium Frame includes the reCamera 2002 Sensor Board GC2053 and reCamera 2002 Base Board with PoE, with fully open-source dimensions and design. It supports real-time heatmap integration with Grafana, AI remote wireless monitoring via Wi-Fi HaLow, AI parking management, and gesture-based game control.

Key Features

Chooes1 reCamera Sensor Board:

reCamera 2002 Sensor Board GC2053

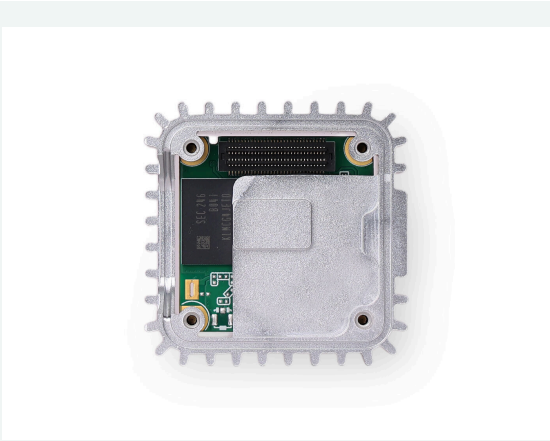
Then, choose 1 reCamera Base Board:

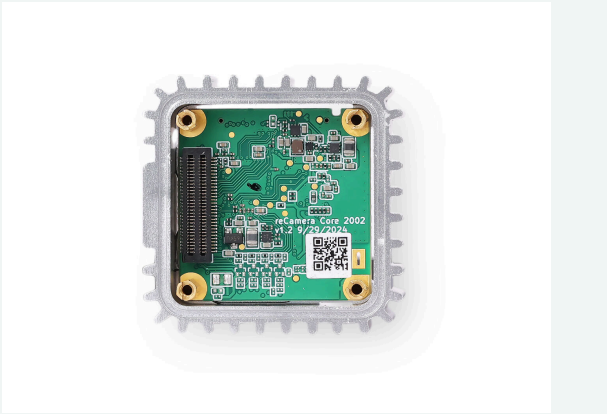
reCamera 2002 Base Board with PoE

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

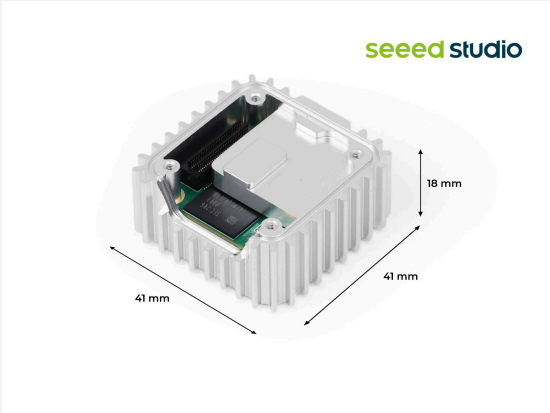








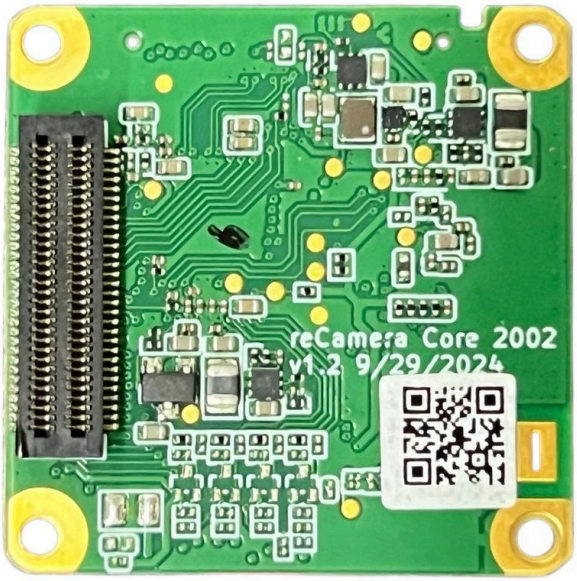




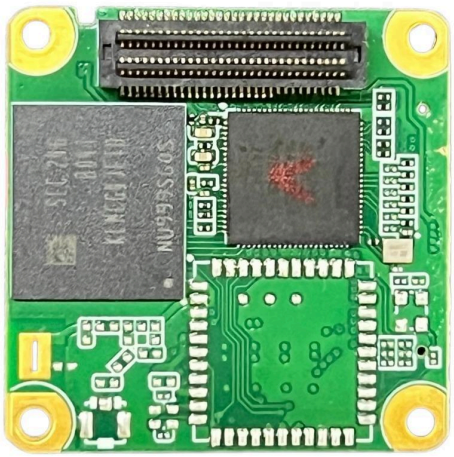
Specification

Core Board	C101 (for all reCamera series)

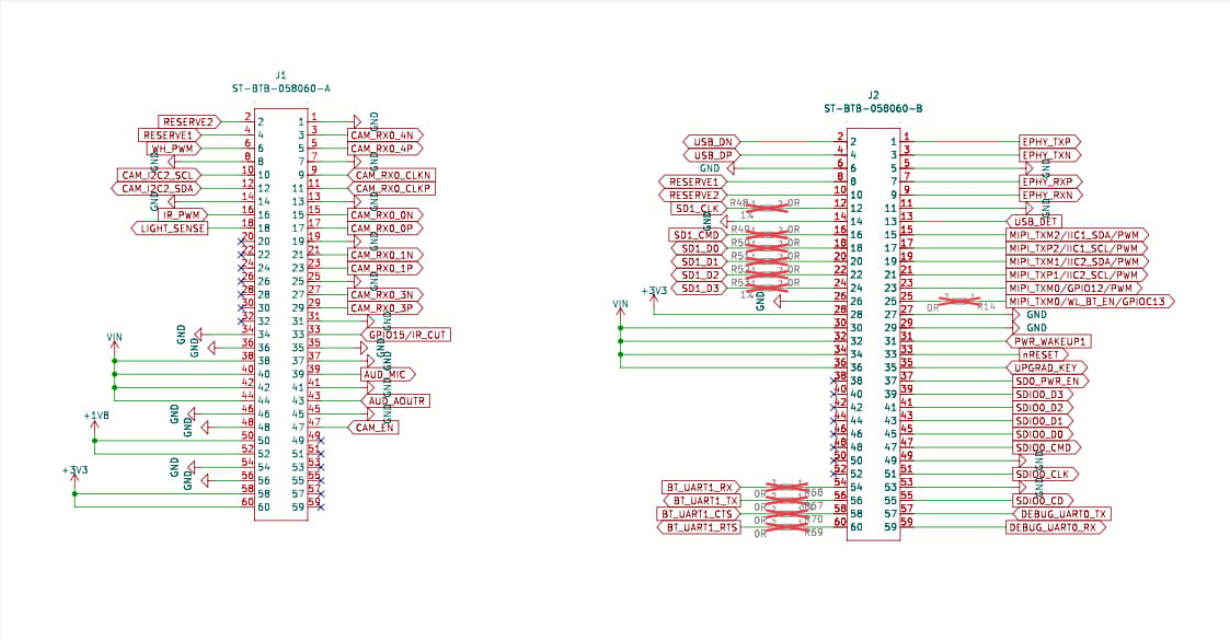
Processor System	AI Performance	1TOPS@Int8
	SOC	SG2002
	CPU	C906@1GHz + C906@700MHz
	MCU	8051@8KB SRAM
	Memory	256MB
	Video Encode	5MP @ 30Fps
Communication	Wifi	Available on reCamera 2002w 8/64GB and reCamera Gimbal
Storage	emmc	8/64GB

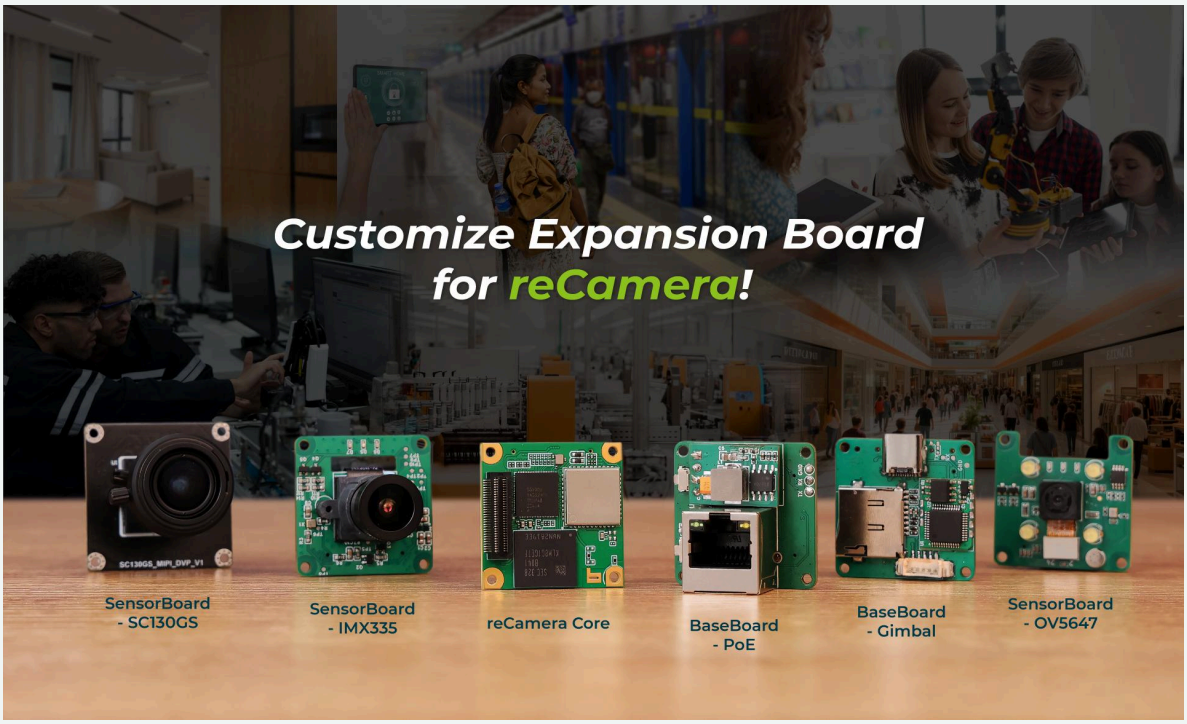
Top View	Bottom View
	

Hardware Overview






J1
ST-BTB-058060-A
RESERVE2
RESERVE1
WH_PWM
CAM_I2C2_SCL
CAM_I2C2_SDA
IR_PWM
LIGHT_SENSE
CAM_RX0_4N
CAM_RX0_4P
CAM_RX0_CLKN
CAM_RX0_CLKP
CAM_RX0_0N
CAM_RX0_0P
CAM_RX0_1N
CAM_RX0_1P
CAM_RX0_3N
CAM_RX0_3P
GPIO15/IR_CUT
AUD_MIC
AUD_AOUTR
CAM_EN
VIN
+1V8
+3V3
GND
J2
ST-BTB-058060-B
USB_DN
USB_DP
RESERVE1
RESERVE2
SD1_CLK
SD1_CMD
SD1_D0
SD1_D1
SD1_D2
SD1_D3
EPHY_TXP
EPHY_TXN
EPHY_RXP
EPHY_RXN
USB_DET
MIPI_TXM2/IIC1_SDA/PWM
MIPI_TXP2/IIC1_SCL/PWM
MIPI_TXM1/IIC2_SDA/PWM
MIPI_TXP1/IIC2_SCL/PWM
MIPI_TXM0/GPIO12/PWM
MIPI_TXM0/WL_BT_EN/GPIOC13
PWR_WAKEUP1
nRESET
UPGRAD_KEY
SDIO0_D3
SDIO0_D2
SDIO0_D1
SDIO0_D0
SDIO0_CMD
SDIO0_CLK
SDIO0_CD
DEBUG_UART0_TX
DEBUG_UART0_RX
BT_UART1_RX
BT_UART1_TX
BT_UART1_CTS
BT_UART1_RTS


Customize Expansion Board
for reCamera!
SensorBoard
- SC130GS
SensorBoard
- IMX335
reCamera Core
BaseBoard
- PoE
BaseBoard
- Gimbal
SensorBoard
- OV5647

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. Video link: https://www.linkedin.com/posts/seeedstudio_howtobuildanaicamera-outdoor-wifi-activity-7401880305940553729-R57w?utm_source=share&utm_medium=member_desktop&rcm=ACoAAGCDEqUBKdDsqK6EqGXClNocxAAtw3IA_T0 Tutorial: https://wiki.seeedstudio.com/ai_remote_wireless_monitor_system_with_wifi_haLow/
- **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. Tutorial: https://wiki.seeedstudio.com/ai_parking_slot_monitoring_demo_with_recamera/
- **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. Video link: https://www.linkedin.com/posts/seeedstudio_howtobuildanaicamera-recamera-yolo11n-activity-7399730949401526272-UdZ4?utm_source=share&utm_medium=member_desktop&rcm=ACoAAGCDEqUBKdDsqK6EqGXClNocxAAtw3IA_T0 Tutorial: https://wiki.seeedstudio.com/use_the_motion-sensing_function_of_recamera_to_play_games/

Part List

reCamera Core Board	x1
Aluminium Frame	x1

Compliance & Logistics



HSCODE	8471504090
USHSCODE	8517180050
UPC	
EUHSCODE	8471707000
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-Core-2002-8GB-p-6433.html
- Core case 3D file
- reCamera Github
- reCamera OS
- reCamera Flyer
- reCamera Flyer - CN

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