

PRODUCT DATASHEET

MINICAM 4MP2MIC

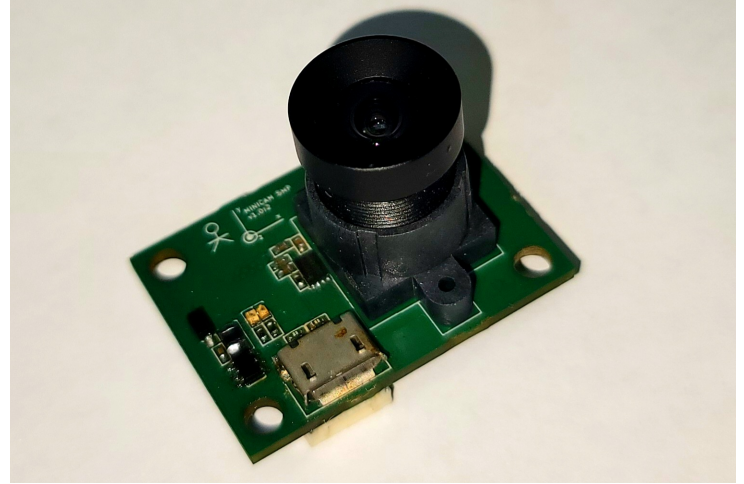
Target Applications

- DRONE ○ MOBILE ROBOT ● SURVEILLANCE ▣ PC PERIPHERAL

KEY FEATURES

- ▶ 4MP stereo camera with dual integrated microphones (stereo audio)
- ▶ Compact rolling shutter sensor — 2560 × 1440 @ 30 fps
- ▶ Wide-band audio capture: 7 Hz – 24 kHz, 48 kHz / 16-bit
- ▶ USB 2.0 Full-Speed plug-and-play, no external driver required

PRODUCT IMAGE



INTERFACE — USB (USB Micro / SM04B-GHS-TBT *)



SM04B-GHS-TBT

- 1 **GND** Ground
- 2 **D -** Data Negative
- 3 **D +** Data Positive
- 4 **VBUS** +5 V (500 mA max)

Protocol: USB 2.0 Full-Speed (12 Mbps)

Connector: USB Micro / SM04B-GHS-TBT *

Shield: Connected to chassis GND

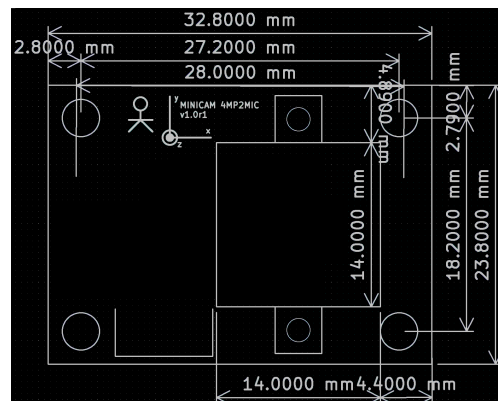
* Mating connector: GHR-04V-2P

BRIEF SPECIFICATION

Input Power	5 V / 250 mA
Resolution	4 MP · 2560 × 1440
Frame Rate	30 fps
Output Format	MJPEG
Focus Type	Fixed focus
Audio	MEMS Stereo · 2 mic
Audio Frequency	7 Hz – 24 kHz
Audio Format	48000 Hz / 16-bit
Interface	USB 2.0 Full-Speed
Operating Temp.	-20 °C ~ +70 °C
Dimensions (L×W×H) *	32.8 × 23.8 × 3.5 mm

* excl. lenses

DIMENSIONS



SPECIFICATION

MINICAM 4MP2MIC

FULL TECHNICAL REFERENCE · CAM0412R PRODUCT DATASHEET REV 1.0

Parameter	Condition / Mode	Value	Unit
IMAGE			
Resolution	Still / Video	4 MP · 2560 × 1440	px
Frame Rate	Full resolution	30	fps
Pixel Size	—	2.0 × 2.0	µm
Optical Format	—	1/3"	—
Dynamic Range	—	81	dB
SNR	—	38	dB
Output Format	—	MJPEG	—
Focus Type	—	Fixed focus	—
AUDIO			
Microphone Type	—	MEMS	—
Microphone Configuration	—	Stereo (2 mic) / None (0 mic)	—
Frequency Response	-3 dB points	7 ~ 24,000	Hz
Sample Rate	—	48,000	Hz
Bit Depth	—	16	bit
POWER SUPPLY			
Supply Voltage (VDD)	Rated input	5.0	V DC
Supply Voltage (VDD)	Absolute maximum	9.0	V DC
Current Consumption	Active, full load	250 (typ.)	mA
Current Consumption	Standby / idle	20	mA
Power Dissipation	T_amb = 25 °C	1.25 (typ.)	W
USB INTERFACE			
USB Standard	—	USB 2.0	—
Speed Mode	—	Full-Speed	12 Mbps
Connector Type	—	USB Micro / SM04B-GHS-TBT	—
VBUS Input	Normal	5.0 ± 0.25	V
ENVIRONMENTAL & RELIABILITY			
Operating Temperature	Continuous	-20 ~ +70	°C
Storage Temperature	Non-condensing	-40 ~ +85	°C
Humidity (Operating)	Non-condensing	10 ~ 90	% RH
MECHANICAL			
Dimensions (L × W × H)	PCB + housing, excl. lens	32.8 × 23.8 × 3.5	mm
Weight	PCB + housing, excl. lens	3.7 ± 0.3	g
Mounting	—	4 × M3 screw	—

OPTICAL CHARACTERISTICS

MINICAM 4MP2MIC

LENS & FILTER REFERENCE · CAM0412R PRODUCT DATASHEET REV 1.0

1. LENS OPTIONS *

Order Code	FOV Diagonal	EFL (mm)	F/No	Lens Height (mm)	Weight
-90-	89°	3.0	F/2.5	15.3	3 g
-70-	66°	5.5	F/2.0	16.5	3 g
-30-	28°	12.49	F/2.4	22.7	3 g
-230-	226°	1.12	F/2.0	20.4	3 g
-80-	83°	3.38	F/2.2	14.5	3 g
-60-	63°	6.21	F/1.6	22.5	3 g
-120-	124°	3.35	F/2.0	17.8	3 g

* Reference only. Specifications subject to change without notice.

2. FILTER OPTIONS

Code	Type	Pass Band	Cut-off Frequency	Note
N	No filter	Full spectrum	—	Bare glass only
1	IR Cut (block) 650nm	< 650 nm	650 nm	Blocks IR (> 650 nm)
2	IR Pass	> 1000 nm	1000 nm	Blocks visible (< 1000 nm)

PART NUMBER NAMING RULE



MIC COUNT

- 0 No microphone
- 2 Stereo (2 mic) — default

LENS FOV

- 90 90°
- 70 70°
- 30 30°
- 230 230°
- 80 80°
- 60 60°
- 120 120°

FILTER TYPE

- N No filter
- 1 IR cut (block) 650nm
- 2 IR pass

COUNTRY OF ORIGIN

- C China
- K Korea
- X Unspecified

SAMPLE UNIT PRICING — CAM0412R SERIES

Listed prices are for representative sample units with IR Cut (650nm) filter. Other lens FOV and filter combinations are available upon request, including volume orders.

Part Number	FOV	Filter	Qty	Unit Price
CAM0412R-901-X	90°	IR Cut 650nm	1 pcs	US\$ 41
CAM0412R-701-X	70°	IR Cut 650nm	1 pcs	US\$ 38
CAM0412R-301-X	30°	IR Cut 650nm	1 pcs	US\$ 44
CAM0412R-2301-X	230°	IR Cut 650nm	1 pcs	US\$ 44
CAM0412R-801-X	80°	IR Cut 650nm	1 pcs	US\$ 38
CAM0412R-601-X	60°	IR Cut 650nm	1 pcs	US\$ 41
CAM0412R-602-X	60°	IR Pass	1 pcs	US\$ 101
CAM0412R-1201-X	120°	IR Cut 650nm	1 pcs	US\$ 38

ⓘ Other FOV / filter combinations available on request. Volume pricing for orders of 10 units or more — contact us for a quote.

✉ hyon646@gmail.com

HOW TO ORDER

Select your model using the Part Number Naming Rule on page 1. Specify the desired Lens FOV, Filter Type, and Country of Origin when placing an order.

Lead Time (stock)	1 – 3 business days
Lead Time (order)	4 – 6 weeks
Minimum Order Qty	1 pcs (standard) · 10 pcs (volume)
Payment	PayPal · Bank Transfer · Other (on request)
Shipping	Worldwide · DHL / FedEx / EMS
Contact	hyon646@gmail.com

DOCUMENT REVISION HISTORY

Version	Date	Description
v1.0	2026-04-15	Initial Release