

# PRODUCT DATASHEET

MINICAM 5MP

Target Applications

- DRONE   ○ MOBILE ROBOT   ● SURVEILLANCE   ▣ PC PERIPHERAL

## KEY FEATURES

- ▶ 5MP mono camera — 2592 × 1944 resolution at 30 fps full frame rate
- ▶ Rolling shutter sensor optimized for stable aerial and mobile platforms
- ▶ USB 2.0 Full-Speed plug-and-play, compatible with Linux / Windows / macOS
- ▶ Selectable FOV: 90° / 70° / 30° / 230° / 80° / 60° / 120° lens options available

## 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

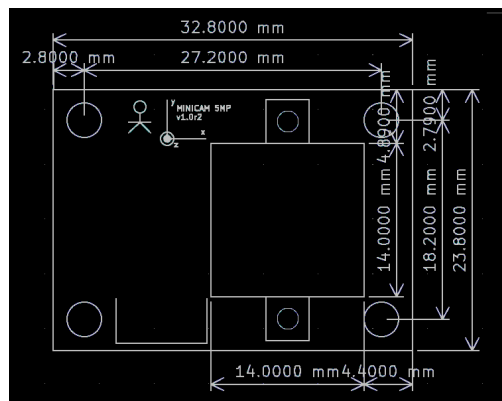
\* Mating connector: GHR-04V-2P

## BRIEF SPECIFICATION

<b>Input Power</b>	5 V / 300 mA
<b>Resolution</b>	5 MP · 2592 × 1944
<b>Frame Rate</b>	30 fps
<b>Output Format</b>	MJPEG
<b>Focus Type</b>	Fixed focus
<b>Audio</b>	—
<b>Audio Frequency</b>	—
<b>Audio Format</b>	—
<b>Interface</b>	USB 2.0 Full-Speed
<b>Operating Temp.</b>	-20 °C ~ +70 °C
<b>Dimensions (L×W×H) *</b>	32.8 × 23.8 × 3.5 mm

\* excl. lenses

## DIMENSIONS



# SPECIFICATION

MINICAM 5MP

FULL TECHNICAL REFERENCE · CAM0510R PRODUCT DATASHEET REV 1.0

Parameter	Condition / Mode	Value	Unit
<b>IMAGE</b>			
Resolution	Still / Video	5 MP · 2592 × 1944	px
Frame Rate	Full resolution	30	fps
Pixel Size	—	2.2 × 2.2	µm
Optical Format	—	1/2.5"	—
Dynamic Range	—	85	dB
SNR	—	39	dB
Output Format	—	MJPEG	—
Focus Type	—	Fixed focus	—
<b>AUDIO</b>			
Microphone Configuration	—	—	—
Frequency Response	—	—	Hz
Sample Rate	—	—	Hz
Bit Depth	—	—	bit
<b>POWER SUPPLY</b>			
Supply Voltage (VDD)	Rated input	5.0	V DC
Supply Voltage (VDD)	Absolute maximum	9.0	V DC
Current Consumption	Active, full load	300 (typ.)	mA
Current Consumption	Standby / idle	20	mA
Power Dissipation	T_amb = 25 °C	1.5 (typ.)	W
<b>USB INTERFACE</b>			
USB Standard	—	USB 2.0	—
Speed Mode	—	Full-Speed	12 Mbps
Connector Type	—	USB Micro / SM04B-GHS-TBT	—
VBUS Output	Host mode	5.0 ± 0.25	V
<b>ENVIRONMENTAL &amp; RELIABILITY</b>			
Operating Temperature	Continuous	-20 ~ +70	°C
Storage Temperature	Non-condensing	-40 ~ +85	°C
Humidity (Operating)	Non-condensing	10 ~ 90	% RH
<b>MECHANICAL</b>			
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 5MP

LENS & FILTER REFERENCE · CAM0510R 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



LENS FOV	FILTER TYPE	COUNTRY OF ORIGIN
90 90°	N No filter	C China
70 70°	1 IR cut (block) 650nm	K Korea
30 30°	2 IR pass	X Unspecified
230 230°		
80 80°		
60 60°		
120 120°		

## SAMPLE UNIT PRICING — CAM0510R 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
CAM0510R-901-X	90°	IR Cut 650nm	1 pcs	US\$ 38
CAM0510R-701-X	70°	IR Cut 650nm	1 pcs	US\$ 35
CAM0510R-301-X	30°	IR Cut 650nm	1 pcs	US\$ 41
CAM0510R-2301-X	230°	IR Cut 650nm	1 pcs	US\$ 41
CAM0510R-801-X	80°	IR Cut 650nm	1 pcs	US\$ 35
CAM0510R-601-X	60°	IR Cut 650nm	1 pcs	US\$ 38
CAM0510R-602-X	60°	IR Pass	1 pcs	US\$ 98
CAM0510R-1201-X	120°	IR Cut 650nm	1 pcs	US\$ 35

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

✉ [hyon646@gmail.com](mailto: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	<a href="mailto:hyon646@gmail.com">hyon646@gmail.com</a>

## DOCUMENT REVISION HISTORY

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