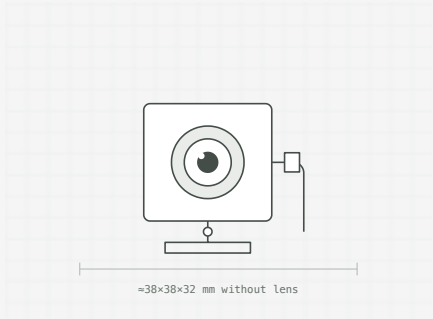
PIKHTA TECH LLC · HTTPS://FIRAI.RU · DATASHEET V0.9 DATED 3 OCT 2026

PH-Cam-K — Global-shutter USB camera

PH-Cam-K — ПХ-Cam-K in Russian documents

USB UVC with a 2 MP global shutter (SmartSens SC235HGS), 1080p@60: no motion blur on a fast-moving object — a label, a hand, a part on a conveyor. Works with every edge computer in the catalog.

AVAILABILITY	LEAD TIME	MINIMUM ORDER (MOQ)	PRICE
build to order, 6–8 weeks	**6–8 weeks; samples — subject to availability**	**1 unit; batches from 10 units**	**on request, RUB excl. VAT**



PH-Cam-K
diagram; photo — after the first samples

Outline drawing; product photos are on the product page. Dimensions: ≈38×38×32 mm without lens.

- SmartSens SC235HGS sensor, global shutter, 2 MP, 1080p@60 over USB (onsemi AR0234 — while stock lasts)
- USB 3.0 UVC — plug-and-play on the PH-K30 / PH-K40 / PH-K01 / PH-J31 / PH-J01
- Metal housing, M12 lens (60° base; 45° / 80° — options)
- Bracket over the work area (kiosk hood, stand), 3 m cable with screw lock

Typical uses: kiosk scanning zone · conveyor and production line · manipulator and work area · vehicle cab.

1. Purpose

A camera for scenes with fast motion: a kiosk scanning zone, a conveyor, a manipulator's work area, a vehicle cab. Global shutter — because a rolling shutter smears a fast-moving object or a hand. USB rather than radio or IP: no FSB notification, no second network, no security questions. Metal housing, bracket over the work area, cable with a locking connector. The onsemi AR0234 sensor of the first version has been discontinued — the base sensor is now the SmartSens SC235HGS (2 MP, global shutter, 3.45 µm pixel); AR0234 modules remain available while stock lasts for those who have already tested them. Connects to the PH-K30, PH-K40, PH-K01, PH-J31, PH-J01 with no drivers.

> **Straight talk:** The sensor changed through no choice of ours: the AR0234 is discontinued. The SC235HGS is the same class (global shutter, 2 MP) but a 16:9 frame instead of 16:10; we will publish a side-by-side of the two sensors on one scene with the bench results. For a static object inside the device the PH-Cam-U is cheaper.

2. Platform, processing and optics

Processing	camera ISP; inference runs on the edge computer (PH-K30 / PH-K40 / PH-K01 / PH-J31 / PH-J01)
TOPS INT8 dense	not applicable (models run on the edge computer) method: —
Memory	not applicable
Storage	none (frames are not stored in the camera)

Sensor	SmartSens SC235HGS, 2 MP, global shutter, 3.45 µm pixel; onsemi AR0234CS 1/2.6″ — while stock lasts
Shutter	global shutter
Resolution	1920×1080@60 (SC235HGS) / 1920×1200@60 (AR0234), MJPEG / YUY2
Lens	M12, 6 mm ≈60° horizontal (base); 4 mm / 8 mm — options; fixed focus at 0.4–1.2 m
WDR	sensor HDR; exposure profile for glare in the work area — in the device image
IR illumination	none; IR-cut filter fitted
Interface	USB 3.0 Type-C on the camera → USB-A, UVC 1.5, no drivers

3. Interfaces

USB	USB 3.0 (USB 2.0 compatible at 1080p@30)
Ethernet / PoE	none
RS-485 / CAN / RS-232	none
GPIO / relay	trigger (external synchronization) — option
M.2	none
Video output	none
Wi-Fi / BT / LTE	none USB, not radio — no FSB notification required

4. Power and thermal

Power input	5 V over USB
Power consumption (typical)	≈1 W
Power consumption (peak)	≤1.5 W
Cooling	passive, metal housing

Enclosure temperature in a closed cabinet at +40 °C ambient	measured after the first sample is tested; we publish the measurement, not a datasheet value

5. Mechanical

Dimensions	≈38×38×32 mm without lens
Weight	≈70 g
Mounting	bracket over the work area, 1/4″ thread, locking ball joint
Connectors	USB Type-C with screw lock, 3 m cable included

6. Environment and protection

Operating temperature	0…+50 °C
Ingress protection	IP40; IP54 — option
Vibration / shock	not rated

7. Bench measurements

Measurements are expected with the first samples. What we measure: share of frames without motion blur, 200 passes of the object.

rolling vs global shutter comparison on one scene — with the first samples

8. Configuration options

Option	Price
SC235HGS, 6 mm lens (≈60°) — base	base
4 mm (≈80°) or 8 mm (≈45°) lens	no surcharge
IP54 housing	on request
External trigger (synchronization)	on request
Monochrome 1 MP OV9281 (B/W, lower cost)	on request

Prices for 1 / 10 / 100 units and for options — in the quotation within 2 business days, valid 30 days. The contract includes a price revision formula tied to the Bank of Russia exchange rate and the DRAM index.

9. What's included

- Camera, lens, bracket over the work area, 3 m cable with lock
- Exposure profile for the scanning zone — in the device image
- 1-year warranty, replacement or spares

- Product passport, mounting instructions

10. Compatibility

Cameras	—
Power / PSU	powered from the device's USB port
Runtimes	UVC on any Linux; exposure profile — in the device image

11. Updates and support

the camera profile is updated together with the system image of the edge computer it is connected to.

12. Documents and origin

EAC declaration	in progress — as part of the device declaration (to be confirmed)
FSB notification	not required — USB, no radio and no encryption
Datasheet	this document: PDF v0.9 and the web version on this website
Product passport	in progress
Vendor security questionnaire	not required — camera without a network — see the device questionnaire
Origin and our part	ODM camera module (PRC) on a SmartSens sensor (onsemi — while stock lasts); batch acceptance — at the factory; profile, checks and kitting in Russia.

13. Chip and sensor vendor documentation

- SmartSens — global-shutter sensors (GS series), including SC235HGS (datasheet — through a SmartSens distributor): https://www.smartsenstech.com/en/mgs_products
- onsemi AR0234CS — product page and datasheet (sensor of the first version; discontinued, remaining stock while it lasts): https://www.onsemi.com/products/sensors/image-sensors/ar0234cs

We do not host third-party documents — links to official pages only; full chip datasheets are available from the vendor or its distributor.