

HDMI Cameras

VL-CAM 4K Auto-Focus Series

4K all-in-one machine next to the microscope

- 4K60 three-channel synchronous output, plug and display immediately
- One-key auto-focus + real-time depth synthesis, PC-free panoramic imaging



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

Get a Quote



Get Expert Advice
+658099 5547 (WhatsApp)



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www.venuslabtech.com

Overview

"4K Smart Eye" - Instant Focus in Seconds, Panoramic View Immediately Presented

VL-CAM 4K Auto-Focus Series uses Sony Starvis II sensor to stream 4K60 over HDMI, USB and Wi-Fi with less than 40 ms latency. One-click ROI auto-focus and live EDF merge deliver full-depth crisp images at high magnification; save to SD or upload wirelessly—no PC required—for classrooms, QC labs and research imaging.

Features of VL-CAM 4K Auto-Focus Series

- Starvis2 4K60
- Three ports output simultaneously with 40ms low latency
- Multiple acquisition and storage methods: voice, network, and SD
- One-click real-time depth of field & stitching
- ROI focusing + ISP sharpening and noise reduction
- Cross-platform software control

Dimension drawing of VL-CAM 4K Auto-Focus Series



Camera interface



DC12V : Power adapter connection (12V/1A)

LED:LED status indicator

SD:Comply with SDIO3.0 standard and SD card could be inserted for video and images saving

ON/OFF:Power switch

USB Mouse:USB Mouse for control of XCamView software

USB 3.0:Connect USB flash drive to save pictures and videos;

Connect 5G WiFi module to transfer video wirelessly in real time;

Connect USB microphone to achieve audio and video recording

USB Video:Connect PC or other host device to realize video image transmission

HDMI:Comply with HDMI2.0 standard 4K/1080P format video output and supporting automatic switch between 4K and 1080P format according to the connected monitors

Specifications

Software Environment under WiFi/USB Video Output	
White Balance	Auto White Balance
Color Technique	Ultra-Fine Color Engine
Capture/Control SDK	Windows/Linux/macOS/Android Multiple Platform SDK(Native C/C++, C#/VB.NET, Python, Java, DirectShow, Twain, etc)
Recording System	Still Picture or Movie
Operating System	Windows 8 / 8.1 / 10 / 11(32 & 64 bit)/macOS/Linux
PC Requirements	CPU: Equal to Intel Core2 2.8GHz or Higher , Memory: 4GB or More , USB interface: USB2.0 interface or higher Display:19 " or Larger , CD-ROM
Operating Environment	
Operating Temperature(in Centidegree)	-10 ~ 50
Storage Temperature(in Centidegree)	-20 ~ 60
Operating Humidity	30~80%RH
Storage Humidity	10~60%RH
Power Supply	DC 12V/1A Adapter

Packing List

Packing Information for VL-CAM 4K Auto-Focus Series



Standard Packing List			
A	Gift box : L:25.5cm W:17.0cm H:9.0cm (1pcs, 1.7Kg/ box)		
B	VL-CAM 4K-AF/MI		
C	Power Adapter: Input: AC 100~240V 50Hz/60Hz, Output: DC 12V 1AAmerican standard: Model: POWER-U-12V1A(MSA-C1000IC12.0-12W-US): UL/CE/FCCEuropean standard: Model: POWER-E-12V1A(MSA-C10001C12.0-12W-DE): UL/CE/FCCEMI standard: FCC Part 15 Subpart BEMS standard: EN61000-4-2,3,4,5,6		
D	USB mouse		
E	HDMI Cable		
F	USB 3.0 A male to A male gold-plated connectors cable/2.0m		
G	CD (Driver & utilities software, Ø12cm)		
Optional Accessory			
H	SD Card (16G or above; Speed: class 10)		
I	Adjustable lens adapter	C-Mount to Dia.23.2mm Eyepiece Tube(Please choose 1 of them for your microscope)	108001/AMA037108002/AMA050108003/AMA075
J	Fixed lens adapter	C-Mount to Dia.23.2mm Eyepiece Tube(Please choose 1 of them for your microscope)	108005/FMA037108006/FMA050108007/FMA075
Note: For I and J optional items, please specify your camera type(C-mount, microscope camera or telescope camera), Touptek engineer will help you to determine the right microscope or telescope camera adapter for your application;			
K	10800I/Dia.23.2mm to 30.0mm Ringl Adapter (rigis for 30mm eyepiece tube)		
L	10800I/Dia.23.2mm to 30.0mm Ringl Adapter (rigis for 30mm eyepiece tube)		
M	Calibration kit	106011/TS-M1(X=0.01mm/100Div.);106012/TS-M2(X, Y=0.01mm/100Div.);106013/TS-M7(X=0.01mm/100Div., 0.10mm/100Div.)	
N	USB flash drive		
O	USB WiFi adapter		

Service & Support

We are dedicated to delivering exceptional optoelectronic solutions to every client. From precision manufacturing and secure delivery to full-lifecycle technical support, we are here to ensure a seamless and reliable experience at every step.

1. Warranty Policy

Quality First, Worry-Free Operation

Warranty Period: We offer a **two-year** warranty service for all of our core optoelectronic products, effective from the date of shipment.

Coverage: We provide free repair or replacement services for malfunctions caused by material defects or workmanship errors under normal operating conditions.

Rapid Response: Upon receiving a warranty claim, we guarantee to initiate the assessment process within **24 hours** to minimize your equipment downtime.

2. Technical Support

Expert Team, Full-Process Guidance

Technical Consultation: Our team of senior optical engineers provides **24/7 online support** to assist with installation, commissioning, optical path alignment, and parameter optimization.

Scheduled Maintenance: We offer full-lifecycle maintenance recommendations, including firmware upgrades, optical component cleaning guidelines, and precision calibration services.

Training Services: We provide customized remote or on-site operational and safety training to ensure your team can operate the equipment efficiently and safely.

3. Logistics & Delivery

Precision Packaging, Global Reach

Professional Packaging: Given the fragile nature of optical instruments, we utilize industrial-grade shockproof, anti-static, and moisture-proof vacuum packaging to ensure zero damage during transit.

Logistics Partners: We partner with top-tier global logistics providers (**DHL / FedEx / UPS / SF Express**) to offer reliable shipping with real-time tracking.

Shipping Insurance: All shipments are fully insured to eliminate logistics risks.

4. Compliance & Certification


Strict Standards, Total Compliance

Quality Certification: Our manufacturing process is **ISO 9001 certified**, and our products comply with international standards such as **CE** and **RoHS**.

Export Compliance: "Committed to environmental responsibility, all our products comply with **RoHS 2.0** and **REACH** standards, ensuring safety and global compliance."

Explore Series

Model	Sampling/Averaging	Exposure time (ms)	Sensor size (mm)	Pixel (μm)
VL-CAM 4K-AF/MI	1x1	0.019~1000	IMX678(C) 1/1.8"(7.68x4.32)	2.0x2.0

 Get in touch with our team to explore configurations, request a quote, or learn more about customized solutions tailored to your needs.

Let us help you move science forward—faster and smarter.

[Get a Quote](#)



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