

Scientific Cameras

VenusLab HyperStore X Camera

Captures ultra-high-speed transient details for research & industry.

- Ultra-high-speed frame rate coverage
- Ultra-large memory guarantee
- Multi-scenario compatible design



One Platform Many Possibilities

Contact Us sales@venuslabtech.com

Get a Quote



Get Expert Advice
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www.venuslabtech.com

Overview

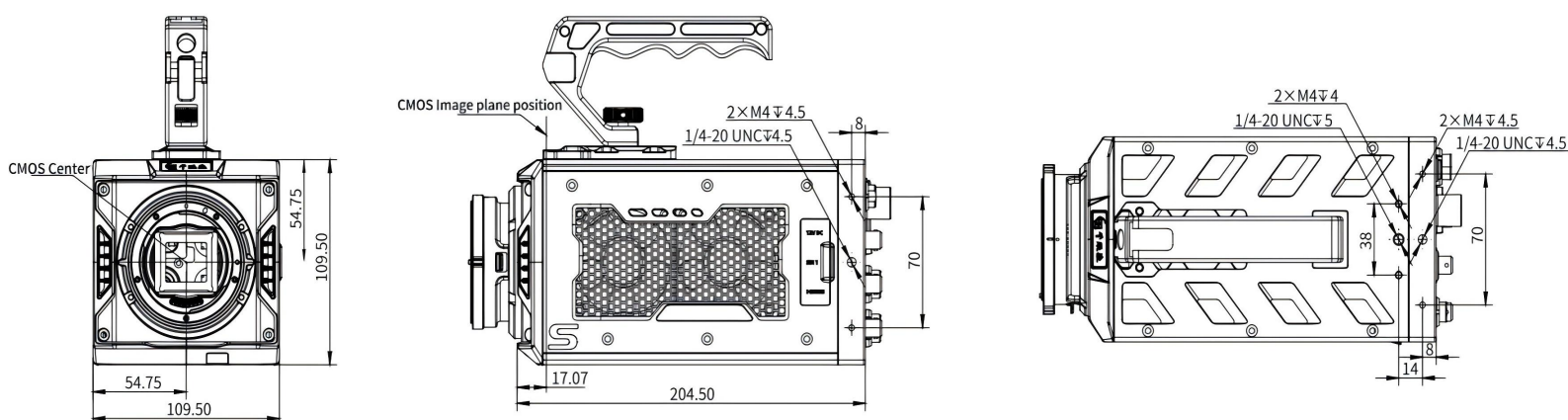
Product introduction of VenusLab HyperStore X Camera :

VenusLab's ultra-high-speed large-memory HyperFrame series, equipped with a new generation of global shutter CMOS sensors, achieves a dual breakthrough in performance of "ultra-high frame rate + ultra-large memory". The entire series supports full-frame (1280×1024) ultra-high-speed imaging, and is standardly equipped with 128GB high-speed RAM storage, which completely solves the industry pain point of "insufficient ultra-high-speed recording duration" and provides "full-process data support" for transient analysis in scientific research and industrial fields.

Features of the VenusLab HyperStore X Camera:

- Industrial-grade redundancy for memory and recording
- Multi-interface scenario penetration capability
- Reliability design for extreme environments
- Efficiency revolution driven by intelligent triggering

Dimensions of VenusLab HyperStore X Camera:



Specifications

VL-HyperFrame 15K, VL-HyperFrame 10K, VL-HyperFrame 10K, VL-HyperFrame 5K have the same parameters :

Parameter Category	Parameter Content
Sensor Type	Global Shutter CMOS
Maximum Resolution	1280×1024
Electronic Shutter	Global Shutter
Minimum Exposure Time	100ns
PIV Frame Interval	300ns
Auto Exposure	Supported
Extreme Dynamic Range	Supported
Data Interface	10 Gigabit Ethernet Port (Compatible with Gigabit Ethernet)
Video Interface	SDI/HDMI
Sync Input Interface	Compatible with 3.3/5V TTL
Sync Output Interface	5V TTL
Timing Input Interface	Supports DC IRIG-B Input
Control Interface	Reserved RS422 Control Interface
Trigger Input	Camera Receives External Trigger Signal
I/O	1 Reserved Output, Customizable
Power Supply	24VDC
Power Consumption	60W
Operating Temperature	-10 ~ 50
High and Low Temperature Control	-35 ~ 60
Operating Humidity	0 ~ 95%

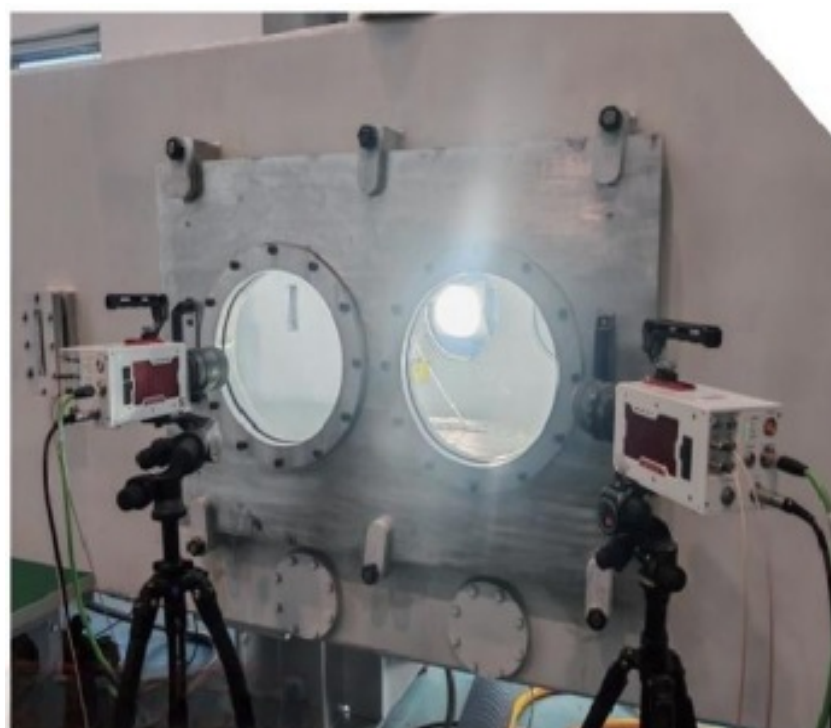
Operating Humidity	0 ~ 95%
Protection Class	IP64
Shock Resistance	30Grms @11ms, 3 Axes 6 Directions, 60 Pulses
Vibration Resistance	Anti-Transport Vibration
EMC	Supported
Lens Interface	Standard EF Mount, Optional F and C Mounts
Cooling Method	Fan

Resolution - Frame Rate - Recording Schedule - 8Bit

Model	VL-HyperFrame 15K	VL-HyperFrame 10K	VL-HyperFrame 7K	VL-HyperFrame 5K
Resolution	Frame Rate (12bits, 8bits calculation)	Frame Rate (12bits, 8bits calculation)	Frame Rate (12bits, 8bits calculation)	Frame Rate (12bits, 8bits calculation)
1280x1024	15000fps, Recording Time 6.17s	10000fps, Recording Time 10.50s	7000fps, Recording Time 15.72s	5000fps, Recording Time 22.88s
1280x896	17600fps, Recording Time 6.17s	11600fps, Recording Time 10.37s	8100fps, Recording Time 15.39s	5800fps, Recording Time 22.25s
1280x720	21600fps, Recording Time 6.25s	14500fps, Recording Time 10.29s	10400fps, Recording Time 15.05s	7300fps, Recording Time 21.59s
1280x256	60000fps, Recording Time 6.30s	40000fps, Recording Time 9.83s	31700fps, Recording Time 13.85s	23600fps, Recording Time 19.29s
1280x8	1060000fps, Recording Time 12.50s	800000fps, Recording Time 17.33s	600000fps, Recording Time 23.77s	470000fps, Recording Time 31.8s

Applications

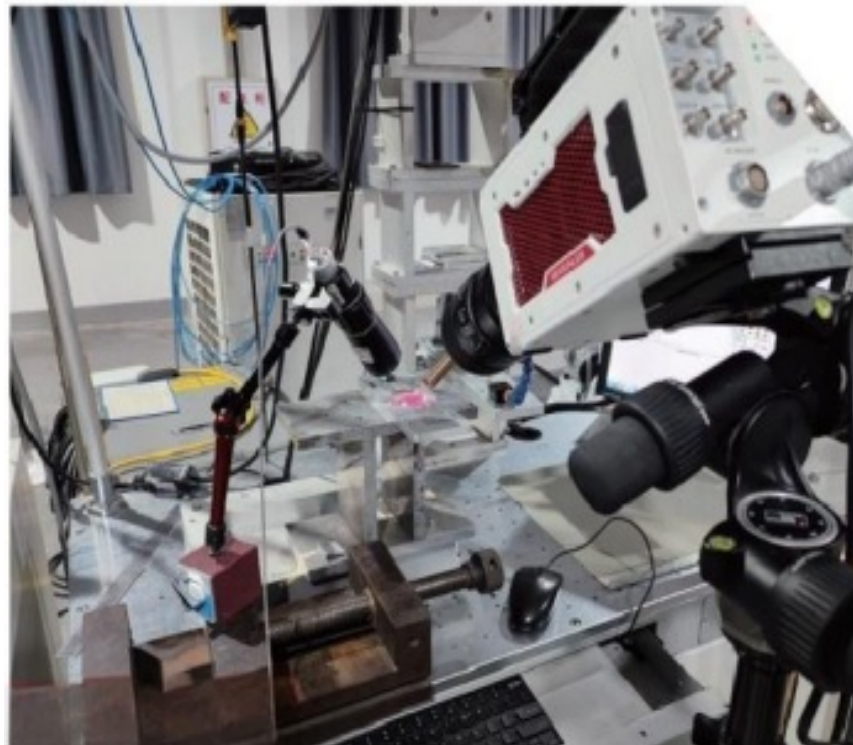
Laser welding



Binocular high-speed speed measurement



Shock tube impact



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	Cooling Method	ROI Maximum Frame Rate (1280x8 Resolution)	Recording Duration at 1280x1024 Resolution (192GB/8bit)	Frame Rate at 1280x256 Resolution
VL-HyperFrame 15K	Fan, Switchable	1060000fps	6.17s	60000fps
VL-HyperFrame 10K	Fan	800000fps	10.50s	40000fps
VL-HyperFrame 7K	Fan	600000fps	15.72s	31700fps
VL-HyperFrame 5K	Fan	470000fps	22.88s	23600fps

 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.

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