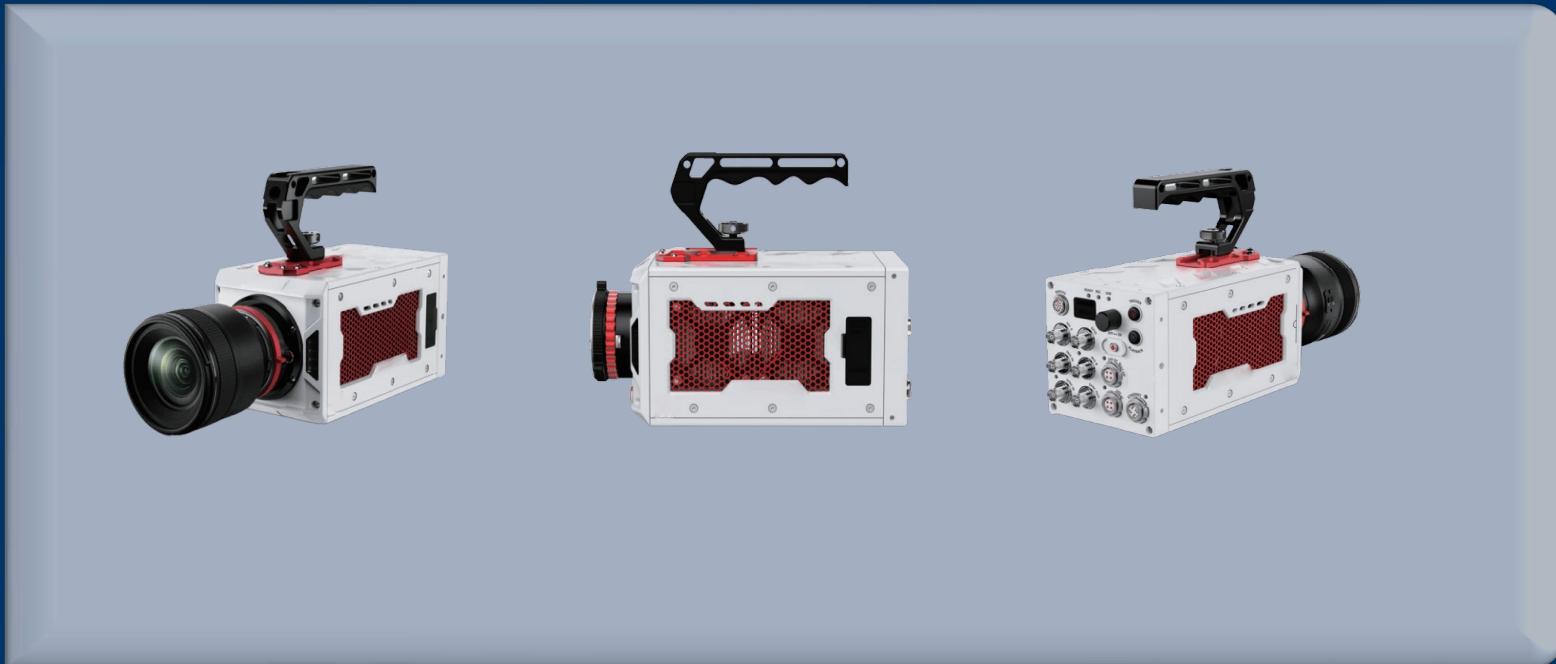# Scientific Cameras
VenusLab HyperStore X Camera

Focus on capturing ultra-high-speed transient details in the fields of scientific research and 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:
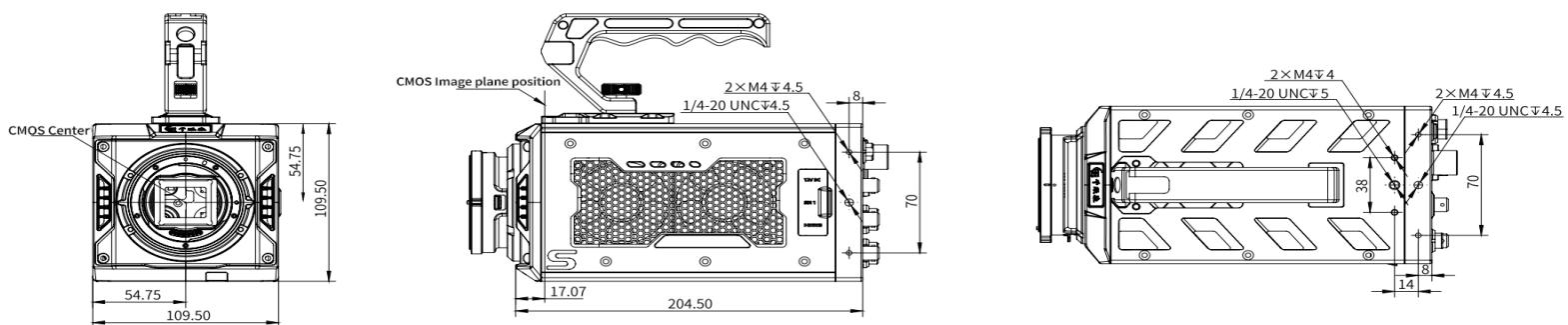
Specifications

**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%
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

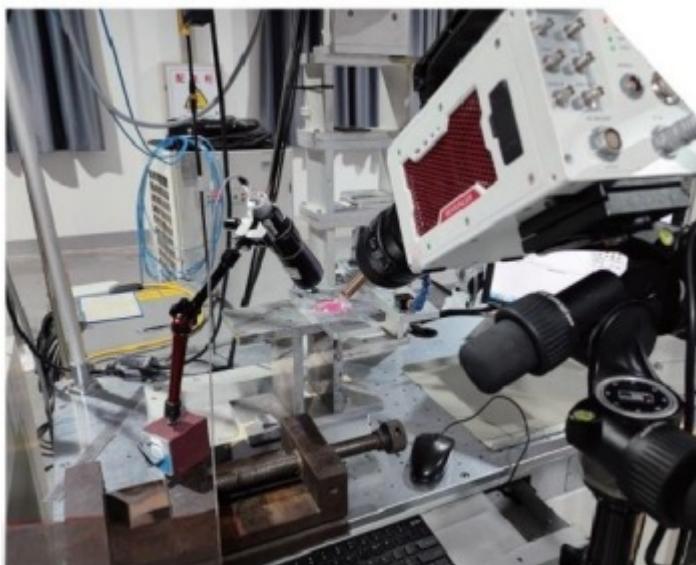| Model	VL-HyperFrame 15K	VL-HyperFrame 10K	VL-HyperFrame 7K	VL-HyperFrame 5K
Resolution	Frame Rate (12bits, 8bits calculation)	Frame Rate (12bits, 8bits calculation)	Frame Rate (12bits, 8bits calculation)	Frame Rate (12bits, 8bits calculation)
1280×1024	15000fps, Recording Time 6.17s	10000fps, Recording Time 10.50s	7000fps, Recording Time 15.72s	5000fps, Recording Time 22.88s
1280×896	17600fps, Recording Time 6.17s	11600fps, Recording Time 10.37s	8100fps, Recording Time 15.39s	5800fps, Recording Time 22.25s
1280×720	21600fps, Recording Time 6.25s	14500fps, Recording Time 10.29s	10400fps, Recording Time 15.05s	7300fps, Recording Time 21.59s
1280×256	60000fps, Recording Time 6.30s	40000fps, Recording Time 9.83s	31700fps, Recording Time 13.85s	23600fps, Recording Time 19.29s
1280×8	1060000fps, Recording Time 12.50s	800000fps, Recording Time 17.33s	600000fps, Recording Time 23.77s	470000fps, Recording Time 31.8s

Applications

Laser welding
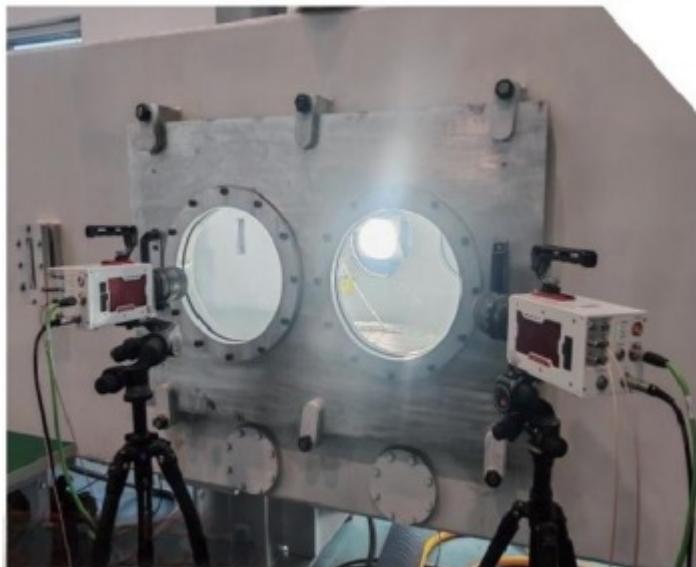
Binocular high-speed speed measurement

Shock tube impact

Explore Series

Model	Cooling Method	ROI Maximum Frame Rate (1280×8 Resolution)	Recording Duration at 1280×1024 Resolution (192GB/8bit)	Frame Rate at 1280×256 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 moves cience forward—faster ands marter.