



WeChat Official Account



CHINGMU Official Website



CHINGMU YOUTUBE

K(Kunpeng) Series Optical Cameras

Infusing your motion capture endeavors
with boundless possibilities

Leading Technological Breakthroughs

The K (Kunpeng) series cameras utilize cutting-edge image processing technology and innovative design to ensure outstanding performance and reliable motion capture results.

Shanghai Head Office:

Room 003C, Building 3, Box 1, Honghui Shijie, 40 Wenshui Road, Jing'an District, Shanghai

Beijing Branch:

Floor 3, Building D, Xingguang Film and Television Park, No.2 Beixing Road East Section, Xihongmen Town, Daxing District, Beijing

Shenzhen Branch:

Room 412, Building B, 1970 Culture Creative Park, Minzhi Community, Longhua District, Shenzhen, Guangdong Province

Chengdu Branch:

Room C2-306, 42 Shu'xi Road (Santai Magic Cube), Jinniu District, Chengdu, Sichuan Province

Qingdao Branch:

Ground floor, Building G, 1177 Yingliu Road (Qingdao World Expo Huachuang International Industry-Education Integration Park), Jimo District, Qingdao, Shandong Province

Hangzhou Branch:

Room 718, 7th Floor, Building 2, China AI Town, No. 1818 - 2, Wenyi Road, Yuhang District, Hangzhou City, Zhejiang Province

K(Kunpeng) Series Optical Cameras

The K (Kunpeng) series cameras by Chingmu are a premium product lineup that combines cutting-edge motion capture technology with industry-leading parameter design. Featuring high precision, efficiency, and quality in the motion capture process, these cameras deliver a comprehensive and precise motion capture experience. Whether used in virtual reality, animation production, biomechanical research, or industrial applications, the K series cameras excel in meeting the high-quality demands of motion capture.



K5 K(Kunpeng) Series Optical Cameras

Advanced Resolution and Optimal Parameter Configuration. The high-end K5 cameras boast a maximum frame rate of 360fps, ultra-low latency of just 2.8ms, and an impressive active tracking distance of up to 56m. With exceptional long-range capabilities, pinpoint accuracy, and minimal delay, these cameras excel across multiple fields and scenarios.



Film and Animation Production



XR/Virtual Shooting



Sports Analysis



Medical Rehabilitation



Positioning Measurements

K9 K(Kunpeng) Series Optical Cameras

High Frame Rate Combined with High Resolution, Near-Perfect Latency Performance, Delivering Unparalleled Clarity and Smoothness to ensure dynamic frame-by-frame rendering for exceptional support across various industry scenarios.



Film and animation production



high-precision measurements



positioning for industrial robots



sports analysis

Unveiling Every Detail

With a maximum frame rate of 360fps and high-resolution features, this camera captures small, fast-moving objects with high precision, delivering intricate image quality and dynamic reproduction.

Instant Low-Latency Performance

Boasting a latency as low as 2.8ms, complemented by powerful frame rates and resolutions, this camera significantly shortens analysis time per second and instantly reveals motion trajectories.

K18 K(Kunpeng) Series Optical Cameras

Broad Perspective, Ultra-Long Tracking Distance, Stress-free Operation in Various Environments, Stable Performance Indoor and Outdoor, Precision Capture, Boosting Creative Imagination Space.



Film and animation production



large space VR



drone positioning in large spaces

An Extensive Field of View

Integrating technological innovation with unique algorithms, it offers multiple lens configurations for selection. Among them, the maximum field of view is 100°x94°, which ensures zero-dead-angle, all-round precise capture within the tracking range.

K26 K(Kunpeng) Series Optical Cameras

Easily dictate the representation of extraordinary visuals and meticulous details. Whether it's large-scale scenarios or multi-person tracking, it outshines with its superior performance benefits, making it the go-to for high-precision production within the industry.



Large-scale film and animation production



broad-scale VR



meticulous object motion capture

Experience Resolution in Extravagance

Unveiling the allure of 5120*5120 high resolution, this technology presents details in all their fullness and articulation, setting industry standards high. It offers the pinnacles of creation bigger possibilities and tailors an ultimate visual experience.

Captivating the Imagination in Distance

With ease, it secures thousand square meters of shooting locations and can actively track up to 90 meters. Retaining a broad field of view and low-latency standards, significantly enhances effects for large scenarios and multi-person tracking.

Powerful and Distinctive Features

The K-Series cameras come laden with a vast array of features that guarantee an exceptional motion capture experience.



High Precision Motion Capture

Armed with a high frame rate of 360fps and finely tuned image processing algorithms, the K-Series cameras boast the newest high-power FPGA architecture and quadruple DDR4 memory embeddings. They are endowed with superior motion capture capabilities, thereby effortlessly engaging in scenarios ranging from hyperfast tiny objects to expansive large-scale vistas.



Multicamera System Support

The K-Series cameras exhibit versatility that allows for flexible assembling and configuration of multiple cameras. This offers multidimensional coverage and capture. The coordination control software of CyanoVision's system enables the creation of intricate motion capture scenarios, catering to the requirements of various projects.



Precise Synchronization and Localization

Through synchronization technology and positioning algorithms of CyanoVision, the K-Series cameras ensure high synchronization and precise positioning of multiple cameras. Time differences and errors are effectively eliminated, providing accurate three-dimensional motion data and maintaining consistency across multiple cameras.



User-Friendly Software Tools

Equipped with CyanoVision's software tool suite, the K-Series cameras are easy to use and multi-functional. They allow for flexible parameter setting, real-time monitoring of capture data, data analysis and exportation, and integration with other applications and systems.



Multi-Protocol Compatibility

With unparalleled compatibility across various devices and systems, the K-Series cameras support multiple interface types, including RJ45. The cameras also support multiple protocols like VRPN, TrackD, DTrack, LiveStream, and more, while being compatible with mainstream software. You can choose between wired and wireless synchronization methods to meet different environmental and requirement needs.



Adaptability to Multiple Environments

The diligently optimized design of the K-Series cameras equips them with an IP66-grade protective stature for resilience. Even under extreme conditions ranging from -30°C to 65°C, they can function with stability. All the while, they maintain outstanding image quality, satisfying the application requirements across numerous industries.



Crux of High-Precision Tech

Supported by high-precision technology and robust parameter configuration of the K-Series, the line-up features infrared fill light and optical finger capture functionalities. Its intricate motion capture is sharp and accurate, delivering a detailed and complete visual output. Simultaneously, the line-up is equipped with full-body tracking abilities, enabling the capture and analysis of full body motion, facilitating more accurate posture and movement capture.

Technical Parameter Comparison



Model ^{※1}	K5	K9	K18	K26	Tailored Edition
Resolution	2640*2160	4256*2160	4512*4096	5120*4200	Customizable
Frame Rate ^{※2}	360fps	360fps	172fps	180fps	Customizable
Standard Lens	Standard Equipment Lens Aperture / Focal Length F1.2/6mm (H*V FOV) 63°x40°	F1.4/8mm 73°x40°	F1.4/8mm 76°x40°	F1.4/8mm 84°x44°	Customizable
Narrow-angle Lens (N)	Optional Equipment Lens Aperture / Focal Length (H*V FOV) None	F1.4/12mm 47°x24°	F1.4/12mm 49°x45°	F1.9/22mm 58°x38°	Customizable
Wide-angle Lens (W)	Optional Equipment ^{※3} Lens Aperture / Focal Length (H*V FOV) None	F2.4/5mm 96°x59°	F2.4/5mm 100°x94°	F2.4/5mm 106°x106°	Customizable
Status Light	Standard Equipment RGB Ring Light	RGB Ring Light	RGB Ring Light	RGB Ring Light	Customizable
Ingress Protection	Optional Equipment ^{※4} IP66 +/- 0.06mm	IP66 +/- 0.04mm	IP66 +/- 0.03mm	IP66 +/- 0.02mm	Customizable
3D Precision (3)					
Passive Tracking Distance*	28m	Standard Version: 30m Standard Version: N.90m W.46m	Standard Version: 30m Standard Version: N.47m W.22m	Standard Version: 32m Standard Version: N.45m W.25m	Customizable
Active Tracking Distance*	50m	Standard Version: 30m Standard Version: N.90m W.46m	Standard Version: 45m Standard Version: N.94m W.44m	Standard Version: 62m Standard Version: N.90m W.50m	Customizable
Infrared Fill Light		yes	yes	yes	Customizable
Optical Finger			yes	yes	Customizable
Full Body Tracking		yes	yes	yes	Customizable
Synchronization Method			Wired and Wireless		Customizable
Interface Type		RJ45			Customizable
LED Quantity			60		Customizable
Whole Machine Power			12—55w		Customizable
Cascade Quantity			100+		Customizable

※1: The standard models are K5, K9, K18, and K26, which are equipped with standard lens and have no protection level. If a narrow-angle lens or wide-angle lens is optional, add the letter "N" or "W" after the standard model. If the optional protection level is IP66, add "IP66" after the standard model.

For example: K9N indicates a model with an optional narrow-angle lens and no protection level. K18WIP66 indicates a model with an optional wide-angle lens and a protection level of IP66.

※2: The K5/K9/K18 is equipped with a standard lens. Its standard equipment and has a protection level of IP66.

※3: The frame rate can be increased through windowing technology, and customization is available.

※4: An additional fee is required when selecting the wide-angle lens as an optional accessory.

※5: An additional fee is required when opting for the IP66 protection level as an optional feature.

(1) 3D Accuracy Measured with Standard Lenses.

*Measurements were taken using a 10mm diameter marker. The observation range can also be increased by supplementing light sources or using markers of larger diameter.

Not only does the K-Series camera boast formidable technical parameters and high-precision tracking capabilities, but its compatibility with proprietary algorithm software enables the achievement of dFOF capture and positioning tracking of marked points on the target object. It's also proficient in real-time recognition and analysis of 3D position and pose data from multiple marked objects within a specific area. Whether your pursuit is virtual reality experiences, animation production or scientific research, the K-Series is capable of meeting your creative imaginations' breadth!

Motion Capture Software - CMAvatar

Serving as the bespoke motion capture software for the K-series camera, CMAvatar is renowned for its user-friendly Chinese interface, simplicity of operation, and dependable performance. It can fulfill a variety of motion capture and tracking requirements. Moreover, the potent alliance of CMAvatar software with the K-series camera opens a world of infinite possibilities for creation, research, and application, ushering in an outstanding motion capture experience!



40+ Character Capture

Real-time Retargeting

Performance Capture

Application Scenarios

Its applications traverse various domains and industries, including film and television animation, virtual idols, biomechanics, motion analysis, health, and more.

Advantageous Features

Possessing numerous robust capabilities, it enables precise motion capture and high-quality tracking.

40+ Character Capture

A significant breakthrough in the industry, capable of capturing the movements of multiple people in complex scenes, enabling interactions such as embracing, running, jumping, piling up, walking freely, and more.

Real-time Retargeting

Through the real-time retargeting function, captured motions can be instantly applied to virtual characters, achieving immediate motion feedback and application.

Intuitive and Flexible Operation

With an intuitive interface, rapid rigid body creation, and customizable marker placement, the software ensures an effortless user experience.

Robust Occlusion-Resistant Algorithm

Powered by intelligent algorithms, the system guarantees uninterrupted motion capture and smooth data presentation, even in occluded scenarios.

Integrated EMG and Force Plate Modules

Directly acquires and processes electromyography (EMG) and force plate data, offering a comprehensive solution for motion analysis.

Hardware Synchronization Support

Enables precise synchronization of data acquisition across multiple devices, enhancing accuracy and reliability.

Data Formats

It supports a variety of output formats, making it easier to integrate with other software and systems for data exchange. Common data formats include: FBX, BVH, BVH_MAX, BVH_MIKU, C3D, TRC, CMA, CMR, CMB, TRB, TS, ANC, KIN, FORCES, and so on.

Open SDK

It provides an open Software Development Kit (SDK), supporting integration with various protocols and third-party software. Main features include:

Protocol Support

Supports VRPN, TrackD, DTrack, OpenVR, LiveStream, and more;

Third-Party Modeling Support

The system supports a variety of mainstream software, including Matlab, Simulink, Visual3D, AnyBody Modeling System, OpenSim, Unity, Unreal Engine 5 (UES), iClone, Blender, Maya, ROS, LabVIEW, and more. It covers virtual simulation, biomechanics, and motion analysis tools. The system also integrates with leading EMG devices, force plates, and other hardware for seamless connectivity;

Multilingual and Cross-Platform Support

The SDK supports languages and platforms such as C/C++, Python, C#, Windows, Linux, Android, and more.