

HDMI Cameras

VL-EFAF4K16M Auto-focus Camera

Multi-scenario microscopic imaging tool with dual-interface convenient output device

- Dual-interface collaborative output
- Professional imaging performance
- User-friendly operation design
- Flexible storage and compatibility
- Industrial-grade reliability



One Platform Many Possibilities

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Overview

Introduction:

VL-EFAF4K16M Auto-focus Camera is an intelligent auto-focus camera compatible with Canon EF mount. It integrates 4K and 16-megapixel imaging capabilities, as well as multiple interfaces including HDMI, NETWORK, and USB.

Powered by Sony back-illuminated CMOS and AI algorithms, it covers scenarios such as medical testing (ophthalmology/stomatology) and ultra-high-definition industrial inspection, while supporting professional functions like real-time reading of lens parameters and depth-of-field synthesis.

Features:

- Large size, high-resolution, and high-performance Sony back-illuminated CMOS sensor
- Compatible for Canon EF mount Lenses, achieving electric control of lens aperture, manual/auto focusing
- Based on lens focusing control, achieve the depth of field synthesis function of the focused images
- Provide lens distortion correction function
- 4K HDMI/ NETWORK / USB multiple video synchronous outputs
- SD card/USB flash drive for captured image and video storage, support local preview and playback
- Excellent ISP with local tone mapping, 3D denoising and ROI white balance ensures great quality of video image.
- Embedded XCamView for the control of the camera and image processing, supporting automatic edge finding and other measurement functions

Dimension:



Specifications

Common Parameter Specification Table

Interface/Button	Function Description
USB Mouse	Controls the built-in XCamView software
USB3.0	Connects to USB drives for video/image storage Links to 5G Wi-Fi adapters for wireless video/image transmission Connects to USB microphones for audio recording
USB Video	Enables video recording via the computer ' s USB 3.0 port
HDMI	Complies with HDMI 2.0; supports 4K/1080P output with automatic resolution switching
LAN	Gigabit Ethernet port for network transmission (via routers/switchers)
SD	SD card slot (SD 10 UHS-I compliant) for local video/image storage
ON/OFF	Power switch
LED	Indicates device status
DC12V	12V power input (via adapter)
Video/Data Interfaces	Function Description
HDMI Port	Supports HDMI 2.0; outputs 30fps@4K (3840x2160) or 30fps@1080P (1920x1080)
Ethernet Port	Supports H.264-encoded video output Enables real-time frame rate switching (4K/1080P/720P) Supports unicast/multicast (single-camera) network setup
Wi-Fi Interface	Connects to 5G Wi-Fi adapters via USB 3.0; supports AP/STA modes; transmits H.264/MJPEG-encoded images in real time
USB Video Port	Enables external triggering for video/image capture, image processing, and camera control
Additional Functionalities	Description
Video Recording	Format: MP4 (H.264/H.265 encoding) Resolution: 8M (3840x2160)? Frame rate: 30fps
Image Capture	Format: ISP (5440x3660) JPEG/TIFF Storage: SD card/USB drive (SD card default, configurable)
Measurement Data Storage	Supports timestamping and layered storage (internal/external fusion) of measurement data during capture
ISP Features	Enables exposure adjustment (auto/manual), white balance (auto/manual/ROI), sharpening, 3D noise reduction, saturation/gamma/contrast/brightness/hue adjustment, 50Hz/60Hz anti-flicker, and rotation
Image Assistance	Includes zoom, pan/tilt, freeze, depth-of-field synthesis, crosshair, image overlay, picture-in-picture, auto-focus, and tools for playback (live view, video replay, image-video comparison), multi-image analysis, and measurement
On-Board RTC	Provides on-board real-time clock for precise timing
Multi-Language	Supports English, Simplified/Traditional Chinese, Korean, French, German, Portuguese, Japanese, Italian, Russian, Dutch, Finnish, etc
Software (NETWORK/USB Video Modes)	
White Balance	Auto, manual, and ROI-based adjustment
Color Technology	Ultra-Fine Color Engine, 3D noise reduction, and high dynamic range tuning
Capture SDK	Cross-platform SDK (Windows/Linux/Mac) for static image/video capture
Recording	Compatible with Microsoft® Windows® for video/image logging
OS Support	Microsoft® Windows® 8/8.1/10/11 (32/64-bit), OS X (Mac OS X), Linux
PC Minimum Requirements	CPU: Intel Core2 2.8GHz or higher
	Memory: 2GB.
	USB Port : USB 3.0 (backward compatible with USB 2.0)
	Display : 17" (19" recommended)
	CD-ROM
Camera Operating Environment	
Operating Temp	-10°C to 50°C
Storage Temp	-20°C to 60°C
Operating Humidity	30% – 80% RH
Storage Humidity	10% – 60% RH
Power Supply	DC 12V/2A adapter

Lens Supported

The verified compatible EF mount lens models are listed below:

LENS	Closest Focusing Distance	Focal Length Display	Aperture Control	Focus Control	Fixed Distance Focus
Canon EF-S 10-18mm f/4.5-5.6 IS STM	About 0.22 meters	Support	Support	Support	/
Canon EF-S 18-55mm f/3.5-5.6 IS STM	About 0.25 meters	Support	Support	Support	Support
Canon EF-S 18-55mm f/4-5.6 IS STM	About 0.25 meters	Support	Support	Support	/
Canon EF-S 15-85mm f/3.5-5.6 IS USM	About 0.35 meters	Support	Support	Support	/
Canon EF-S 18-135mm f/3.5-5.6 IS USM	About 0.39 meters	Support	Support	Support	Support
Canon EF-S 18-200mm f/3.5-5.6 IS	About 0.45 meters	Support	Support	Support	/
Canon EF 24mm f/1.4L II USM	About 0.25 meters	Support	Support	Support	/
Canon EF 24mm f/2.8 IS USM	About 0.2 meters	Support	Support	Support	/
Canon EF 35mm f/1.4L II USM	About 0.28 meters	Support	Support	Support	/
Canon EF 50mm f/1.2L USM	About 0.45 meters	Support	Support	Support	Support
Canon EF 50mm f/1.4 USM	About 0.45 meters	Support	Support	Support	/
Canon EF 85mm f/1.2L II USM	About 0.95 meters	Support	Support	Support	/
Canon EF 16-35mm f/2.8L II USM	About 0.28 meters	Support	Support	Support	/
Canon EF 16-35mm f/4L IS USM	About 0.28 meters	Support	Support	Support	/
Canon EF 24-70mm f/2.8L USM	About 0.38 meters (Macro mode is about 0.2 meters)	Support	Support	Support	/
Canon EF 24-70mm f/4L IS USM	About 0.38 meters (Macro mode is about 0.2 meters)	Support	Support	Support	/
Canon EF 24-105mm f/4L IS USM	About 0.45 meters	Support	Support	Support	/
Canon EF 100-400mm f/4.5-5.6L IS II USM	About 0.98 meters	Support	Support	Support	/
Sigma 150-600mm f/5-6.3 DG OS HSM IS	About 2.6 meters	Support	Support	Support	/

Packing List

Packing Information for VL-EFAF4K16M Series



Standard PackingList	
A	Gift box:L:25.5cm W:17.0cm H:9.0cm(lpcs,1.7Kg/box)
B	X7FCAM4K16MPA_EFLCamera
C	Power Adapter:Input:AC 100~240V 50Hz/60Hz,Output:DC 12V2AAmerican standard:Model:POWER-12V2A(MX24Z1-1202000)+American standard plugEuropean standard:Model:POWER-12V2A(MX24Z1-1202000)+European standard plug
D	USB Mouse
E	HDMI Cable
F	USB3.0 A male to a male gold-plated connectors cable/1.5m
G	CD(Driver &utilities software,O12cm)
Optional Accessory	
H	SD Card(16G or above;Speed:class 10)
I	USB flash drive
J	USB Wi-Fi adapter
K	Ethernet cable
L	Canon/Tamron/Sigma EF mount lens

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