

# EH314 MINI 4K

3.5X Optical Zoom Camera with 3-axis Gimbal

User Manual

V2.1

2021.02



 **FOXTECH**

# Description

## Disclaimer

Thank you for purchasing this product. you can log in to the website for the latest product information, technical support and user manual. It is recommended that you download and use the latest version of the user manual. This manual is subject to change without notice.

You can also get product usage information or technical support through official customer service phone, we will serve you wholeheartedly. Due to different production batches, the appearance or function parameters are slightly different and will not affect the normal use of the product.

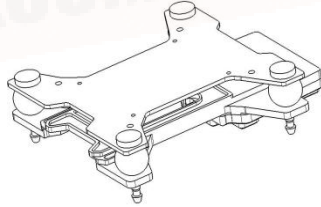
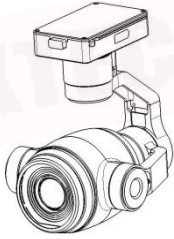
Please read this statement carefully before using. Once used, it is deemed to be an endorsement and acceptance of the entire contents of this statement. Please read the instruction manual carefully and strictly follow the instructions in this manual to install and use this product. Foxtech will not be liable for any result or loss caused by improper use, installation, assembly or modification of users.

## Intellectual Property

The intellectual property rights of this product and manual are owned by Foxtech. Any organization or individual may not copy, reproduce or distribute in any form without written permission. If you need to quote, you need to indicate the source, and you should not make any modifications, deletions and references to this manual.

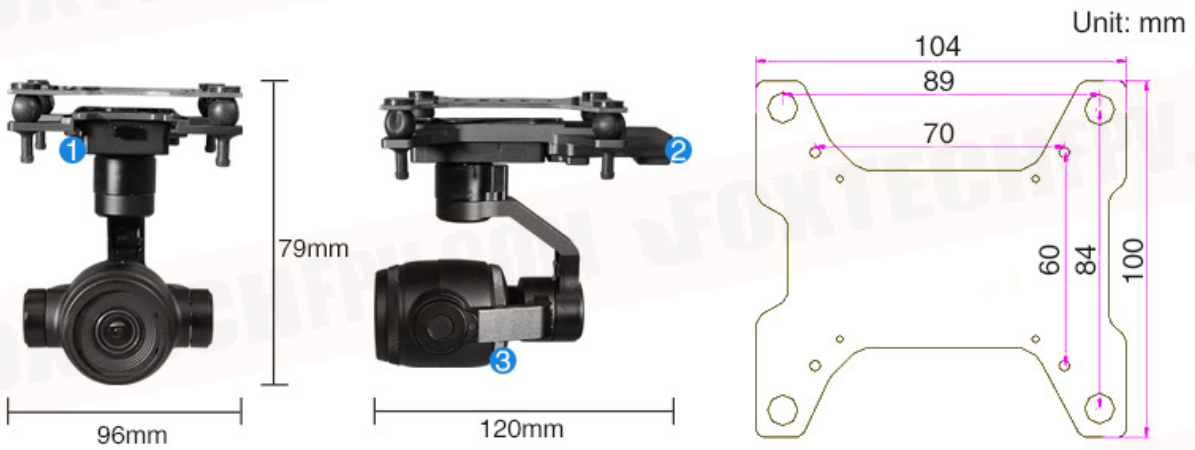
# Overview

## 1. Packing List



EH314 Optical zoom camera and gimbal x1

IDU Gateway shock absorber x1



Gimbal Debugging Port



Ethernet Port Can Port



SD Card Slot

## 2. Using Suggestion

EH314 Optical Zoom Camera and Gimbal User Manual

RainBow-R1S Data Link User Manual

"Pod Edition Software User Manual"

"Flight Control Edition Software User Manual"

Please check the list of all items before continuing to read the EH314 Optical Zoom Pod User Manual.

### 3. Note

1. Ensure that there is no obstruction within the activity scope of the pod, otherwise it will cause serious consequences such as the pod not working properly or even burning.
2. The EH314 optical zoom pod is a precision device. Do not replace the UV mirrors provided by the unofficial, or add other items such as hoods, counterweights, etc., otherwise it will cause serious consequences such as poor performance of the pods and even burning.
3. Please keep the lens clean and wipe it with a clean glasses cloth. The lens is too dirty or causes the focus to slow down or even can't focus etc.
4. Do not pull out the Micro SD card during taking pictures or recording, otherwise the images obtained during shooting may be lost.
5. Do not disassemble or repair it yourself, otherwise you will not be able to enjoy the warranty policy.
6. The EH314 pod needs to cooperate with the data link to be used normally. Please use and install correctly. Otherwise, the pod will not work properly or even burn out.
7. Please do not reset the login password, or you will not be able to log into the software.

## Product Brief Introduction

The EH314 optical zoom pod adopts 3.5x optical zoom lens, a 1/2.3 CMOS sensor, and has 12 million effective pixels, and a high-precision 3-axis gimbal with target tracking function. Can be widely used in inspection, survey, monitoring and other fields.

## Installation

### 1. Reparation for Installation

#### Supported device types

EH314 pods can be used with the Rainbow R1S data link, network video link, or other third-party network video link to display images on the ground PC, tablet ipad, and mobile phone (Android), and realize zooming and taking pictures, recording video, gimbal moving and other controls. (third-party network video link needs to support USB hotspot sharing or WiFi, then it can be used on mobile phones).

Work together with flight controller can get higher pointing accuracy and heading drift can be suppressed. At the same time, information such as GPS of the flight control can be written into the photo or video information.

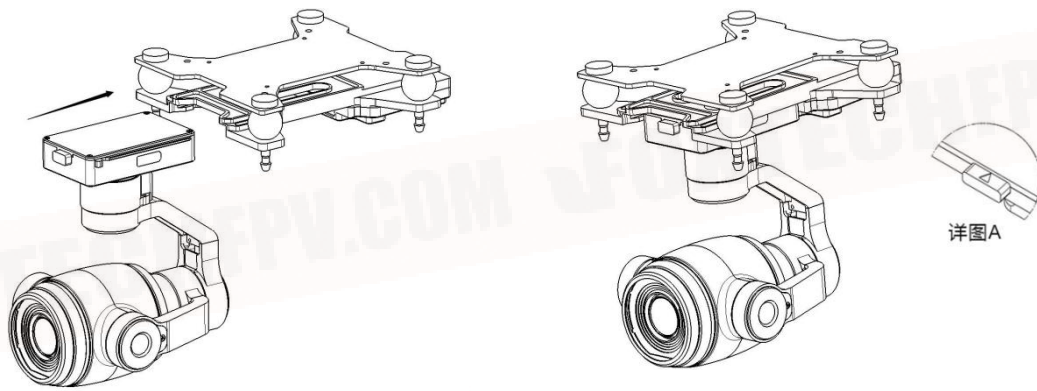
If not connect to the flight controller, the information writing function such as GPS will be lost, but other functions can still be used normally.

### 2. Supported Micro SD card type

Supports up to 128GB. Please use a Micro SD card of Class 10 or UHS-1 and above to ensure normal video recording.

### 3. Install the Gimbal

1. Aim the EH314 slideway at the quick released slideway of the IDU gateway shock absorber plate and then push in.
2. When hear a click, the locking mechanism is locked and the installation is completed (locking standard: as shown in the figure below, can fully see the triangular arrow).
3. Install the Micro SD card to the camera. A standard Micro SD card is recommended



## Display Control

Brief introduction

Refer to

GCS software user manual V2.0

software user manual Flight control version

For the deep customization and integration needs of customers, the required SDK interface protocol can be opened. Realize data communication with third-party flight control, ground station software integration, and function expansion.

# Specification

Working voltage	12V-25V
Power	6W
Weight	EH314 275g IDU 100g
Size	96*79*120mm
Interface Type	Ethernet port
Display and control method	Windows PC or Android cellphone, tablet
<b>Environmental parameter</b>	
Working Temperature	-10°~60°
Storage Temperature	-20°~70°
<b>Gimbal Parameter</b>	
Angular Jitter	±0.01°
Mounting Type	detachable
Controllable Rotation Scope	Pitch: +70° to -110° , Yaw: ±300°
Structure Design Scope	Pitch +75°to -100° Yaw ±310° Roll:+90°to-50°
Max. Control speed	Pitch 120°/s; Yaw 180°/s
<b>Camera parameter</b>	
Sensor	CMOS:1/2.3 ;total pixels 12.71 mega max. Resolution 4152*3062
Lens	3.5x optical zoom lens F 3.85~13.4mm 21-74mm equivalent focal length Minimum shooting distance: 1mm~3mm(Near focus ~ far focus) Field Angle (horizontal):82~25°
Image storage format	JPEG
Video storage format	MP4
Working Mode	REC ;PIC;
Through fog	Electronic
Exposure mode	Auto/manually
Video Resolution	10Hz 20fps 4608*3456 1600w 50Hz;20fps(4000*3000)1200w 50Hz;25fps(3840*2160)800w default
Minimum illumination	color 0.5Lux/F2.4
2D noise reduction	support
3D noise reduction	support
electronic shutter	1/3~1/30000 s
exposure	auto mode
Digital zoom	4x
Information video overlay OSD	support
Finger-point zoom	support
Finger-point zooming range	1~14x
One key to scale to single image	Support
Support memory card type	Micro SD card
Image Resolution	Max. 4152*3062

This content is subject to change.

Download the latest version from

<https://www.foxtechfpv.com/fh314-4k-3-5x-optical-zoom-camera-with-3-axis-gimbal.html>

For everyday updates, please follow

Foxtech Facebook page: <https://www.facebook.com/foxtechhobby>

YouTube Channel: [https://www.youtube.com/user/foxtechonline/featured?view\\_as=subscriber](https://www.youtube.com/user/foxtechonline/featured?view_as=subscriber)