FOXTECH SEEKER-18 IR 18X Optical Zoom Camera with 3-axis Gimbal

The User's Manual

Introduction of product

FOXTECH SEEKER-18 IR is a 3-axis stabilized gimbal equipped with a 18X optical zoom camera and a infrared camera. The 3-axis gimbal adopts the integrated design, the structure is compact and it is easy to be installed.This 3-axis gimbal adopts intelligent design solution so the gimbal can work once power is added, don't need to debug; The magnetic encoder can accurately perceive the posture changes in motor motion, and the posture sensor can accurately perceive the relative position of motor. All these characteristics can let the camera keep stable during the movement, and keeps the camera at a steady shooting angle even at high speed and intense shaking. The 18X optical zoom camera can easily capture details over distance, the infrared camera can take photoes at 640x480 resolution, and the sensitivity is less than 65mk.

FOXTECH SEEKER-18 IR can be applied in many fields like police surveillance and evidence collection, power line inspection,disaster prevention and mitigation,emergency monitoring and rescue etc.

Features:

-IP64 rating,waterproof and dustproof
-3-Axis high Stabilized Gimbal System
-18X optical zoom,CVBS and 720p/60fps output for video downlink
-1080p/30 video recorded for on-board SD card
-Thermal sensor: 640x480 resolution,CVBS 50HZ(PAL)/60HZ(NTSC)
-4 levels thermal zooming: 2X,4X,8X and 16X

Specifications:

Material: Aviation aluminum alloy,nylon
Product size: 180x178x185mm
Weight: 1050 g
Working temperature: - 10 ℃ ~ 45 ℃
Input voltage: 4 s ~ 6 s (14.8V ~ 22.2 V)
Range of control angle : -40°～40°(roll angle),-120°～30°(pitch),-170°～
170°(direction angle)
Control accuracy: 0.03°
Control signal: SBus
Output interface: AV analog output, miro-HDMI HD output
Storage: 2 TF Cards(white light, infrared video record respectively)

White Light Camera:

Lens: 18X optical zoom lens
Sensors: 1/4" 3 megapixel CMOS sensor
Video output resolution: 1280*720@60fps
Video storage resolution: 1080 p
Focus time: < 2 s
Automatic white balance: support
Auto gain control: support

Auto color correction: support
Wide dynamic: support (dynamic range can reach 105dB)

Infrared Camera:

Resolution: 640x480
Pixel-space: 17μm
Types: Uncooled focal planar micro bolometer
Wavelength range: 8～14μm
Thermal sensitivity (NETD): ≤65mk@30℃
Lens focal length: 19mm
Field angle: 32.0x24.2°
Image output time: ≤5s
Image denoising: digital filtering
Electronic zoom: 2 times,4 times,8 times,16 times magnification
Polarity reversal: support
Palette: the pseudo color switching Frame
Frequency: 50Hz
Extensible temperature measurement functions: the central point,highest temperature and lowest temperature display function;over temperature alarm

The interface definition
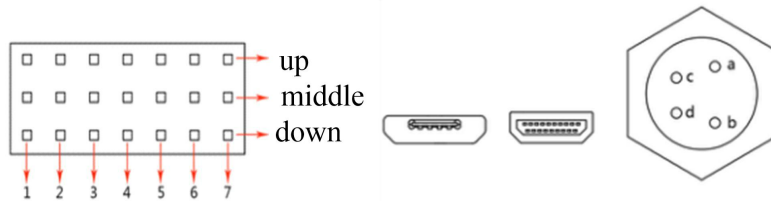
	1	2	3	4	5	6	7	a	b	c	d	
Up	SBus											
Middle	＋5V							Blue	Brown	Black	White	
Down	GND											
Definition	SBus signal							Video outpu	Video GND	GND	Power	

Note: When using the SBus , it only need to connect the 1 pin, and the 2-7 pin must be in blank.

The Futaba SBus control bus is defined as follows:
RC_CH1--------- **Roll control**
RC_CH2--------- **Pitch control**
RC_CH4--------- **Direction control**
RC_CH5--------- **Visible light video camera control**
RC_CH6--------- **Video switch control**
RC_CH7--------- **Zoom control**
RC_CH8--------- **Infrared camera video camera control**

Notice

1.The input voltage only supports 4S ~ 6S.

2.There are about 2 seconds for self-inspection after the pod is power-on. When the sound is heard, the self-inspection is completed. Please do not shake the pod in the self-inspection process. If the inspection fails (for a long time there is no beep), please turn on the power again.

3. HDMI default outputs the visible light camera video signal,AV default outputs the infrared camera video signal.

4. The video switch control: the switching control from the mid-position to low position and then back to the mid-position can change the visible light and infrared camera video signal; the switching control switch from the mid-position to the top and then back to the mid-position is the palette switch of infrared camera .

5. In the default state, the zoom control is the white light camera zoom control. When the video switch control cutting from the mid-position to high-position (and ultimately stay at the high-position) 2S later, the zoom control will be the infrared camera electronic zoom control.

6.The mid-level of white light video camera control is the standby position; the control is switched from the mid-position to high-position and then back to the mid-position can switch the camera mode, and the camera mode includes the video mode and camera mode. The acting switch from mid-to low position can trigger a video (photo) command .

7.The mid-position of infrared video camera photo control is the standby position, switch to low-position can trigger the video, and switch to the high-position and then back to the middle-position can trigger the camera.

8.Shut off the power before you will stop the video , otherwise the video will be damaged.

9. The users are not allowed to disassemble and modify the optoelectronic pod. Once the user disassembles or modifies by themselves, it is deemed to automatically give up the right to after-sales service, and the losses caused by it, our company does not undertake any responsibility.

10.Our company reserves the right to modify the product parameters, performance and other information, so there is no notice of change.

Installation dimensions
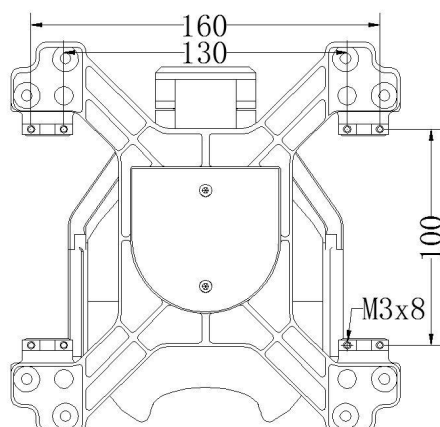
Package Includes:

1x Foxtech SEEKER-18 IR 18x Optical Zoom Camera
1x Foxtech SEEKER-18 IR 3-axis gimbal
8x Damping Component
1x Cable
1x User Manual