FOXTECH

FH325 25X 4K HD Zoom Camera with 3-Axis Gimbal
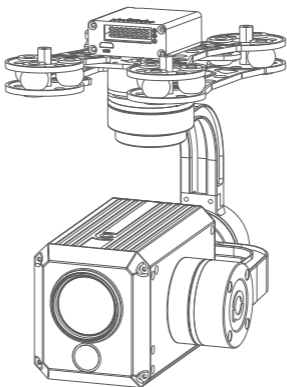
Content

3-Axis Gimbal

25X 4K Camera

Gimbal Brief Introduction

FH325 25X 4K high-precision 3-axis gimbal is developed based on FOC technology, features high stability, small volume, light weight and low power consumption. The gimbal offers 2 smart speed modes: FAST speed and LOW speed. Fast speed mode is used for small zooming range, low speed mode is used for large zooming range.The gimbal supports one-key back to center function, and also supports PWM and serial command control.

Target Tracking (Optional)

FH325 also can be equipped with tracking module to realize the target tracking function, with which you will never lose the object. Just zoom in and put the object you want to track in the screen, move the cursor to the object and lock it via controller, and then the camera will track it automatically.
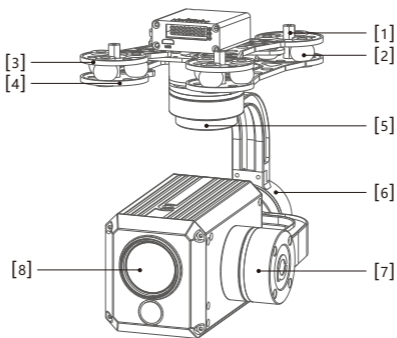
[1]Fixedpillars

[2]Damper

[3]Upper Damper Board

[4]Lower Damper Board

[5]Yaw Axis Motor

[6]Roll Axis Motor
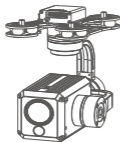
[7]Pitch Axis Motor

[8]HD Zoom Camera

⚠ Please make sure that the motor is not stopped by any object during the rotation, if the gimbal is blocked during rotation, please remove the obstruction immediately.

Packing List

Gimbal*1
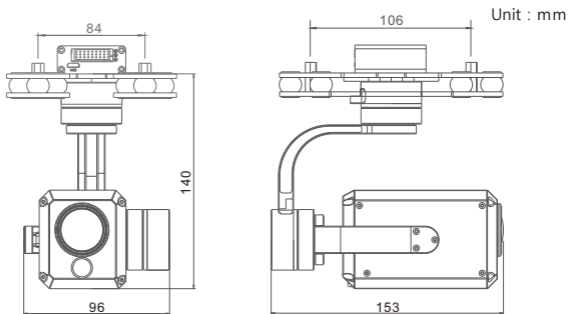

Screw Pack*1

M3*5mm
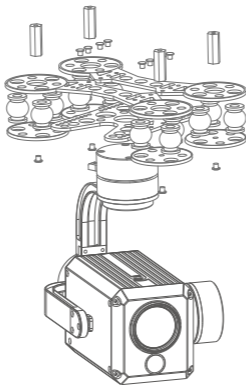half round inner six angle*12

Copper pillar*4

Damper*12

Loading Board Drawing

Unit : mm

84

140

96

106

153

Mechanical@electronic Characteristics

Voltage	3S~4S	IDDQ	330mA@12V
IDDT	450mA@12V	Environment	-10~+50℃
Size	L144*W85*H134mm	Weight	666g

Working Characteristics

Pitch：-90°~+90° Roll: -85°~+85°
Yaw：-150°~+150°
Precision：Pitch & Roll：± 0.02° Yaw± 0.03°

Gimbal Signal Wire Connection Diagram
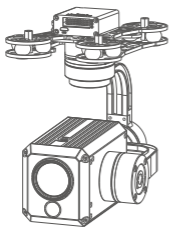
HDMI : micro HDMI OUTPUT
      1080P 60fps default
SD card: max 32G ,class10
       FAT32 format
HDMI : HDMI 输出，micro HDMI 接口
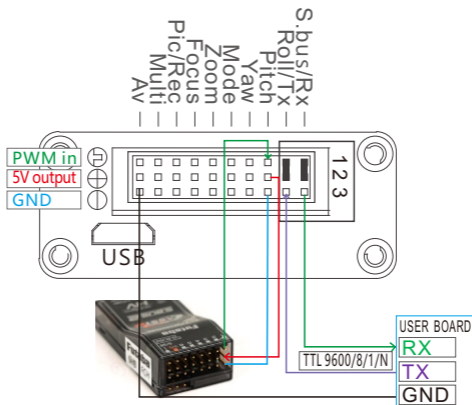   高清输出 1080P 60fps
SD card: 最大支持256G 卡，class10 高速卡
   格式化为FAT32

S.bus/Rx
Roll/Tx
Pitch
Yaw
Mode
Zoom
Focus
Pic/Rec
Multi
Av

PWM in
5V output
GND

1
2
3

USB

USER BOARD
RX
TX
GND

TTL 9600/8/1/N

S.bus/Rx:connect to Rx2 for track function. （S.bus/Rx 用户不可用，默认出厂与RX2连接，用做串口功能）
Roll/ Tx:connect to Tx2 for track function. （Roll/ Tx 用户不可用，默认出厂与TX2连接，用做串口功能）
Pitch:PWM in, pitch control （俯仰控制，PWM 输入）

	1 pitch up 俯仰向上
	2 pitch stop 俯仰停止
	3 pitch down 俯仰向下

S.bus/Rx
Roll/Tx
Pitch

1 2 3
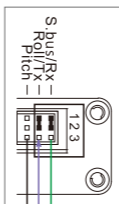
We have protocol for control the gimbal and camera, please contact our technical support for detail doc.

USER BOARD / GPS module

TTL 9600/8/1/N

RX
TX
GND
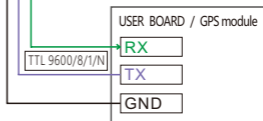
Yaw:PWM in, Yaw control(指向控制，PWM 输入）

	1 Yaw right 指向右转
	2 Yaw stop 指向停止
	3 Yaw left 指向左转

Mode:change the speed / home position (调整云台控制速度/一键回中)
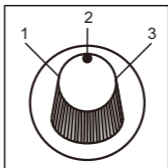
Position 1：lowest speed for pitch and yaw. (云台低速)
Position 2: middle speed for pitch and yaw. (云台中速)
Position 3: highest speed for pitch and yaw. the speed is continuously quickly from 1 to 3. (云台高速)
Click = from 2 to 3 and back to 2 quickly. (切一次的动作是指 从中到高，再快速回到中)
One click : home position (切1次回中)
Two click: look down (切2次俯仰垂直向下)
Three click: Yaw not followed by frame (切3次锁定模式，飞机转，云台不跟随)
Four click : Yaw followed by frame (切4次，跟随模式，云台指向跟随飞机转动而转动)
Five click : restore the factory settings (切5次，恢复出厂设置)

ZOOM: zoom the camera (放大，缩小)

	1 zoom tele 放大
	2 stop zoom 停止
	3 zoom wide 缩小

focus : focus the camera (手动调焦，默认自动对焦模式)

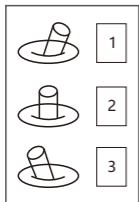|	
	1 focus tele 远焦
	2 stop focus 停止
	3 focus near 近焦

Pic/Rec : picture / start record , stop record（拍照，开始录像，停止录像）

Switch 2 to 1:camera mode change.(从2 切到 1 ， 拍照模式/录像模式切换)
Picture mode:the number is quantity of SD card can storage;(拍照模式下，数字显示卡里剩余空间还能保存的照片数)
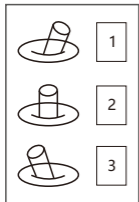Record mode:the time is recording time from start record.（录像模式下，时间显示录像进行的时间）
Switch 2 to 3:
A) take a picture.(在拍照模式下，从2切到3，拍一张照片)
B) Start record / stop record（录像模式下，从2切到3，开始录像，再次从 2 切到 3 停止录像）

Multi: backup PWM channel for customize 备用PWM控制

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Camera Brief Introduction

FH325 4K 25X Optical Zoom camera has 20.4 mega effective pixels, supports 25X optical autofocus, 4K@25FPS/1080P25 video record and HDMI 1080P/60fps output for HD video transmission back to the ground. And FH325 supports max 256G SD card. FH325 features small size, compact structure and light weight,only 666g.

Camera Specification

CMOS	Sensor	1/2.3"　CMOS sensor
	Total Pixels	25.90MP
	Video Pixels	4K:8.29MP/FHD:6.10(16:9)
	Effective Pixels	20.4MP(photo)
Lens	F	F1.8-F3.6(f=4.08~81.6mm)
	Zoom	20X optical zoom,25X(4K) iA Zoom,40X(FHD)
Optical IS		5 axis Optical IS
Video	Format	MPEG-4
	Pixel	4k:3840x2160/30p、FHD:1080/60p、（HD:720/30p）Shutter
	Speed(Manual)	1/30～1/8000
Photo	Format	JPEG
	Pixel	20.4MP(4:3)
	Shutter Speed(Manual)	1/2～1/2000
System	Output Interface	HDMI(1080/50)
	Control Interface	UART
	Power	DC12V
	Power Consumption	4W(video recording)