



NexRadio Gimbal

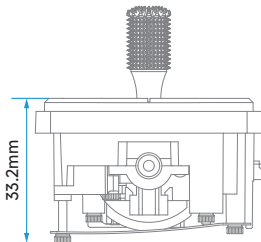
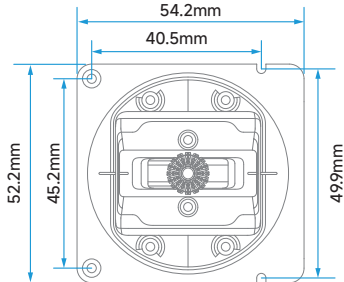
使用说明书 | USER MANUAL

第 1 版 2026-07-14

1. Product Profile

BETA FPV's NexRadio Gimbal is a full-size professional RC Gimbal. Built upon exquisite structural design and exceptional manufacturing craftsmanship, it features a high-precision, long-life position sensor at its core, and offers multi-dimensional adjustability.

2. Dimensions

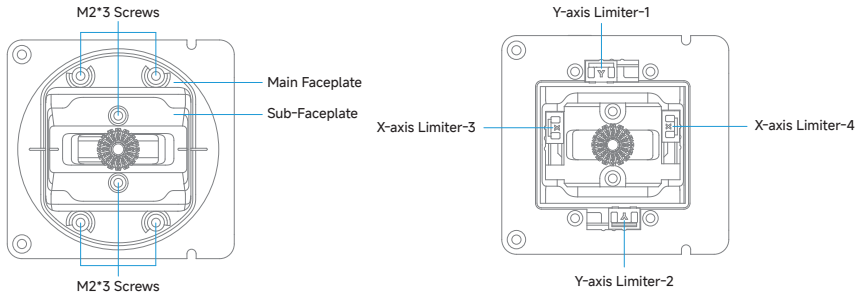


3. Specifications

NexRadio Gimbal Parameter Comparison		
Gimbal Model	NexRadio DCS Gimbal	NexRadio RDC Gimbal
Position Sensor	DCS (Digital Capacitive Sensor)	RDC50 Potentiometer
Sampling Precision	13bit	12bit
Resolution	8192	4096
Sensor Lifespan	Theoretically infinite	1 Million Cycles
Communication Interface	UART	ADC
Operating Voltage	3.3V	
Travel Adjustment Range	24°/27°/30°	
Y-axis Centering Mode Toggle	Supported	
Centering Tension Adjustment	Supported	
Throttle Damping Adjustment	Supported	
Throttle Detent Adjustment	Supported	
Stick End	M4	
Product Dimensions	54.2mm*52.2mm*33.2mm	
Mounting Hole Dimensions	45.2mm*40.5mm*49.9mm	
Weight	Approx. 84.8g (per set)	Approx. 74.6g (per set)

Note: Sampling Precision and resolution are determined by the main ADC circuitry of the radio transmitter. Since the RDC50 potentiometer is a passive analog component, these parameters are not defined independently for the potentiometer itself.

4. Function Overview



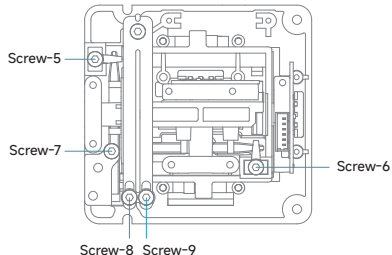
Y-Axis Travel Adjustment

- Remove 4 M2×3 screws and detach the Main Faceplate;
- Toggle Y-axis Limiter-1 to adjust the maximum downward travel angle. From right to left, the positions correspond to 24° / 27° / 30°.

- Toggle Y-axis Limiter-2 to adjust the maximum upward travel angle. From left to right, the positions correspond to 24° / 27° / 30°.

X-Axis Travel Adjustment

- Remove 2 M2×3 screws and detach the sub-faceplate;
- Toggle X-axis Limiter-3 to adjust the maximum rightward travel angle. From top to bottom, the positions correspond to 24° / 27° / 30°.
- Toggle X-axis Limiter-4 to adjust the maximum leftward travel angle. From bottom to top, the positions correspond to 24° / 27° / 30°.



Y-Axis Spring Tension Adjustment

- Use screw-5 to adjust the Y-axis centering force. Turning it clockwise increases the tension(centering force), while turning it counterclockwise decreases it.

X-Axis Spring Tension Adjustment

- Use screw-6 to adjust the X-axis centering force. Turning it clockwise increases the the tension(centering force), while turning it counterclockwise decreases it.

Y-Axis Centering Mode Switching

Use screw-7 to switch the Y-axis centering mode.

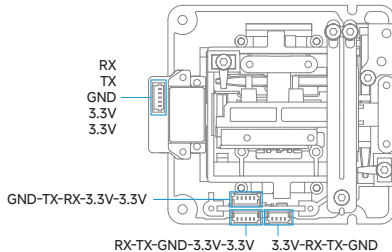
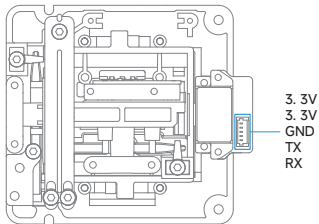
- Self-Centering Disabled: Turn it fully clockwise to disable self-centering. This mode is suitable for use as the throttle channel.
- Self-centering enabled: Turn it counterclockwise until the Y-axis returns to center completely. This mode is suitable for use as the pitch channel.

Throttle Sensitivity Adjustment

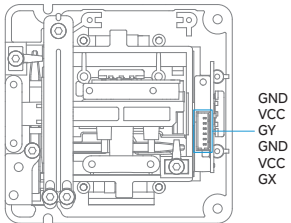
- Damping Adjustment: Adjust the throttle damping using Screw-8. Turning it clockwise increases the friction resistance, while turning it counterclockwise decreases it.
- Detent Adjustment: Adjust the throttle tactile clicks using Screw-9. Turning it clockwise makes the detent feel heavier and more pronounced, while turning it counterclockwise makes it lighter and smoother.

Wiring Guide

- NexRadio DCS Gimbal Wiring Diagram



- NexRadio RDC Gimbal Wiring Diagram



5. Service & Support



BETA FPV Technical Support



Manual



BETA FPV Official Shop

6. Compliance information

FCC statements

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference.
- (2) this device must accept any interference received, including interference that may cause undesired operation.



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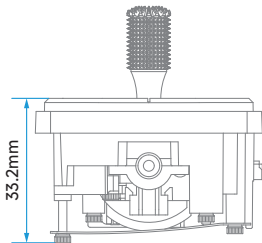
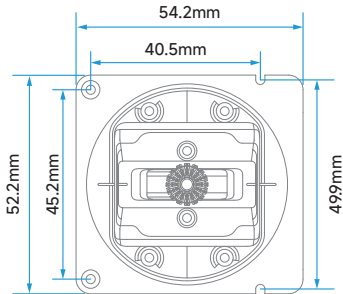
MADE IN CHINA



1. 产品概述

NexRadio摇杆是BETAFPV推出的一款全尺寸、专业级航模摇杆，以精妙的结构设计和卓越的生产工艺为基础，以高精度和长寿命的位置传感器为核心，并具备多个维度的调节功能。

2. 外观尺寸

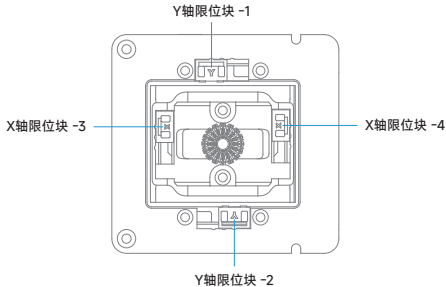
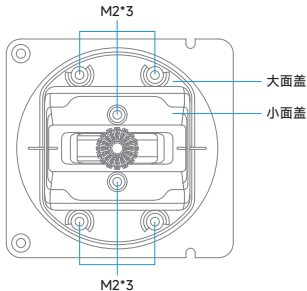


3. 规格参数

NexRadio摇杆参数对照表		
摇杆型号	NexRadio DCS摇杆	NexRadio RDC摇杆
位置传感器	DCS数字电容	RDC50电位器
采样精度	13bit	12bit
分辨率	8192	4096
传感器寿命	无接触（理论无限）	100万次
通信接口	UART	ADC
工作电压	3.3V	
行程调节范围	24°/27°/30°	
Y轴回中模式切换	支持	
回中力度调节	支持	
油门阻尼调节	支持	
油门刻度调节	支持	
摇杆头规格	M4	
产品尺寸	54.2mm*52.2mm*33.2mm	
安装孔尺寸	45.2mm*40.5mm*49.9mm	
重量	约84.8克（1套）	约74.6克（1套）

提示：采样精度与分辨率由遥控器整机ADC电路决定，RDC50电位器本身为无源模拟器件，不单独定义该参数。

4. 功能简介

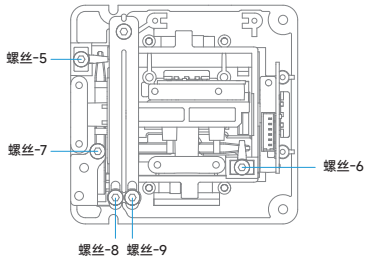


Y轴行程调节

- 取下4颗M2*3螺丝，拆开大面盖；
- 拨动Y轴限位块-1可调节Y轴向下的最大行程角度，从右到左分别对应24°/27°/30°；
- 拨动Y轴限位块-2可调节Y轴向上的最大行程角度，从左到右分别对应24°/27°/30°。

X轴行程调节

- 取下2颗M2*3螺丝，拆开小面盖；
- 拨动X轴限位块-3可调节X轴向右的最大行程角度，从上到下分别对应24°/27°/30°；
- 拨动X轴限位块-4可调节X轴向左的最大行程角度，从下到上分别对应24°/27°/30°。



Y轴回中力度调节

- 通过螺丝-5调节Y轴回中力度，顺时针调节回中力度变大，逆时针调节回中力度变小。

X轴回中力度调节

- 通过螺丝-6调节X轴回中力度，顺时针调节回中力度变大，逆时针调节回中力度变小。

Y轴回中模式切换

通过螺丝-7切换Y轴的回中模式；

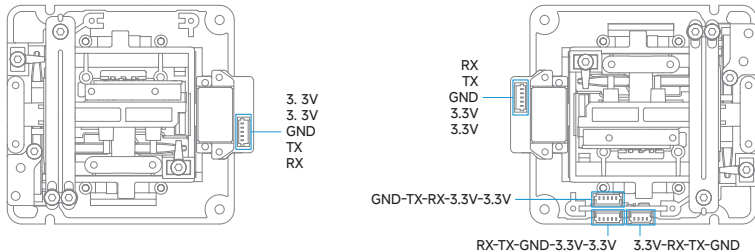
- 不回中：顺时针拧到底为不回中模式，适合作为油门通道；
- 回中：逆时针拧至Y轴完全回中即可，适合作为俯仰通道。

油门感度调节

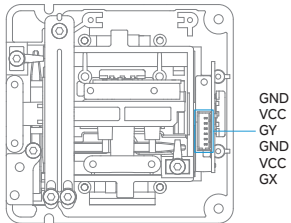
- 阻尼调节：通过螺丝-8调节油门阻尼，顺时针调节阻尼变大，逆时针调节阻尼变小；
- 刻度调节：通过螺丝-9调节油门刻度，顺时针调节刻度变重，逆时针调节刻度变轻。

接线指引

• NexRadio DCS摇杆接线图



● NexRadio RDC摇杆接线图



5. 服务与支持



BETA FPV技术支持



说明书



官网