



# VR03

FPV Goggles

User Manual

V1.0

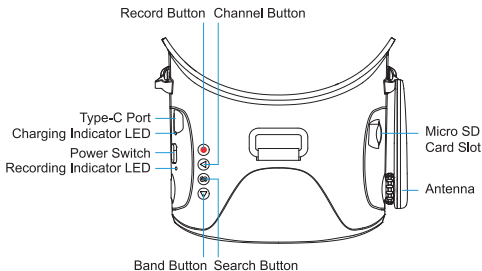
VR03 is the FPV goggles developed by BETAFPV. It has maintained the BETAFPV design philosophy for having a minimalist appearance style, simple operations, and ergonomic design. The goggles aim to deliver a pleasing user experience for all model enthusiasts with an upgrade on the DVR recording function and great performance.

## 1. Specification

Body Specifications	Size	130x145x90mm
	Weight	About 300g
	Camera Format	NTSC/PAL
	Support Channel	48CH
Screen	Size	4.3 inch
	Screen Resolution	800*480
Power	Battery	3.7V, 2000mAh
	Normal Mode Endurance	About 2 hours
	Record Mode Endurance	About 1 hour 10 minutes
	Maximum Charging Current	1A
Port	Antenna Port	RP-SMA (Whip Antenna included)
	Charging Port	Type-C
	Card Slot	Micro SD Card (Supports FAT system, supports maximum 64GB storage. C10 is recommended)
Record	Screen Resolution	480P
	File Format	AVI

## 2. Normal Function

### 2.1 Button Operation



- Power switch

Turn the power switch left and right to turn the goggles off or on. When facing the switch, the left position is powered off, the opposite of the position is powered on.

- Search button (S)

Quick frequency search: Press and hold the frequency search button for 2 seconds to start the frequency search. After 3 seconds, there will be a beep sound and the best available frequency will be selected. Quick frequency search is completed.

Frequency scan: Short press the frequency search button once to enter the frequency scan interface.



Green	0<RSSI<20 Frequency is available
Yellow	20<RSSI<70 Frequency has moderate interference from another transmitter
Red	70<RSSI<99 Frequency is completely in use by a transmitter
White	The strongest signal which the goggles received in this scan

- **Band and Channel button**

In the frequency scan interface, the band button can be cycled down to select different bands, and the channel button can be cycled to the right to select different channels.

Pilot can select the goggles frequency by pressing the band and channel button.

For example, select a band and channel with green status since these frequencies are not occupied and signal interference is relatively weak. Then, set the quadcopter to the corresponding frequency and adjust the goggles to match.

- **Record button**

In the FPV interface, short press the record button to start or stop recording and long press to enter or exit the DVR interface.

Note: Please ensure the battery is fully charged before use, the recommended voltage is above 3.7V (short press the S button to review). Please wear the goggles properly and adjust the headband to a comfortable length.

## 2.2 Frequency Selection

The FPV goggles can receive the 5.8GHz spectrum, distributed across 6 bands (A, B, E, F, R, and L) of 8 channels (CH-1, ....., CH-8), as shown below:

	CH 1 (MHZ)	CH 2 (MHZ)	CH 3 (MHZ)	CH 4 (MHZ)	CH 5 (MHZ)	CH 6 (MHZ)	CH 7 (MHZ)	CH 8 (MHZ)
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917
L	5362	5399	5436	5473	5510	5547	5584	5621

Press and hold the Search button for 2 seconds to automatically search for the frequency point with the strongest signal strength in the space to obtain the FPV picture of the quadcopter.

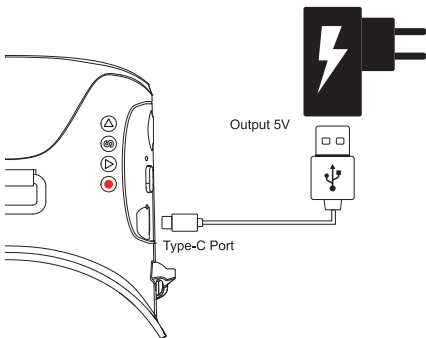
User can also shortly press the Band button to switch to the designated band and use the Channel button to switch to the designated channel so that the FPV goggles can work on the designated frequency point.

## 2.3 Charging the FPV Goggles

The FPV goggles have a built-in 2000mAh battery and no external battery is required. When voltage is below 3.4V, there will be a beep sound ringing every 10s and this indicate that the goggles needs to be recharged. User can also press the S button to check the voltage.

The steps to charge the goggles battery:

- Turn off the FPV goggles;
- Connect FPV goggles and adapter with the Type-C cable (5V output adapter is allowed, such as mobile phone charger) ;
- The Charging Indicator LED will be solid blue when charging and it turns off when fully charged.



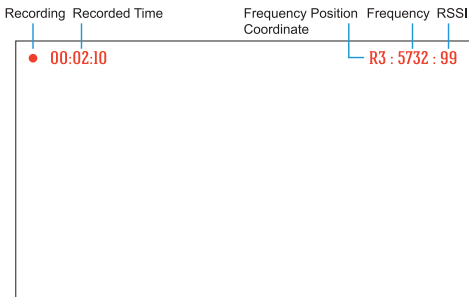
Note: This device doesn't support fast charging protocols, hence the device cannot be fast charged.

## 3. Recording Function

### 3.1 Start / Stop Recording

FPV goggles support video recording function, short press the record button to start or stop video recording.

- Insert the micro SD card into the micro SD card slot (Support FAT32 system only and maximum 64G storage);
- After short pressing the record button, a red dot will appear on the upper left corner of the screen, and there will be a "beep-beep" sound from FPV goggles;
- Wait for 8 seconds, the red dot and the recording indicator LED start flashing. At the same time, a line of red numbers appears and the timer starts running, indicating the start of recording;
- Short press the record button. After 2-3 seconds the red dot on the upper left corner stop flashing together with the timer being vanished, and the red recording indicator LED also turns off. This indicates the goggles has stopped recording.



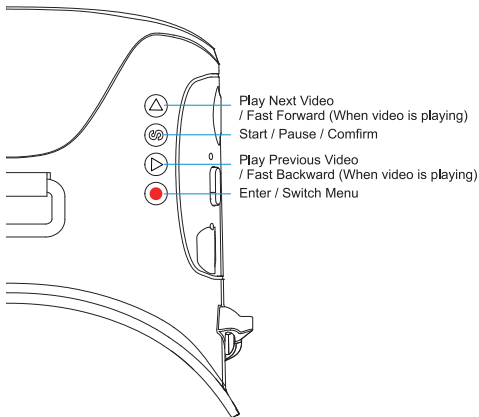
Note: After pressing the record button, the DVR recording function will take about 8-10 seconds to be activated, please wait in patience.

Note: The maximum duration of each recording is 10 minutes. When a recording exceeds 10 minutes, a new recording file will be created automatically.

## 3.2 DVR Function

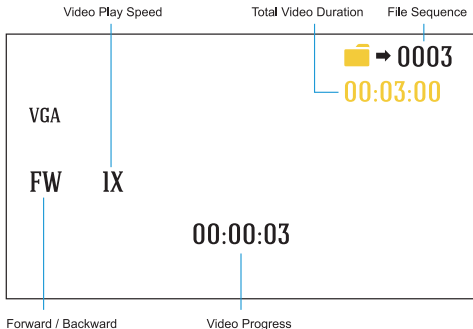
FPV goggles supports DVR replay function, operating steps are listed as follows:

- Ensure Micro SD card has been inserted into the slot, with recording files in the card;
- Long press the record button for 2-3 seconds and there user will hear three beeping sounds. "LOADING DVR..." will appear on the screen;
- Wait about 8-10 seconds depending on the file size to finish loading and enter the DVR interface;
- After entering the DVR interface, button functions are redefined and explained by image shown below;
- Long press the record button for 2-3 seconds in the DVR interface again to exit.





Use the above buttons on the goggles to perform switching videos, Play or Pause, Fast Forward or Fast Backward, etc.



Note: After pressing the record button, the DVR recording function will take about 8-10 seconds to be activated, please wait in patience.

## 4. Attention

Please turn off the power after use. If the device has been left unused for a long time, please recharge it every three months. Otherwise, the battery will be damaged.

After (hearing) the low battery alarm, please stop using the goggles and recharge ASAP. Otherwise, there may be a risk of direct power shutdown, and possibly damaging the battery.



Instagram



Facebook



Youtube



BETAFPV

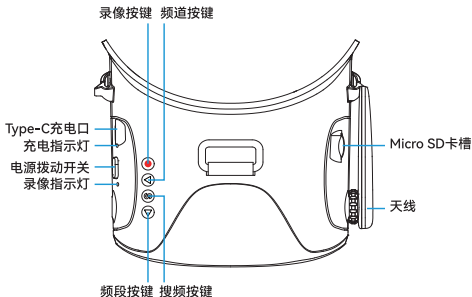
VR03是BETA FPV开发的一款FPV视频眼镜，保持了BETA FPV一贯的极简操作和外观设计，轻盈舒适的人体学造型，加上新增的录像功能，将给模型爱好者们带来不一样的使用体验。

## 1. 产品参数

整机规格	尺寸	130x145x90mm
	重量	约300g
	视频制式	N制/P制
	支持通道	48CH
屏幕	屏幕尺寸	4.3英寸
	屏幕分辨率	800*480
电源	电池	3.7V, 2000mAh
	普通模式续航	约2小时
	录像模式续航	约1小时10分
	最大充电电流	1A
接口	天线接口	RP-SMA (标配鞭状天线)
	充电口	Type-C
	卡槽	Micro SD卡 (支持FAT系统, 最高支持64GB, 建议C10)
录制	分辨率	480P
	文件格式	AVI

## 2. 基本功能

### 2.1 按键功能介绍



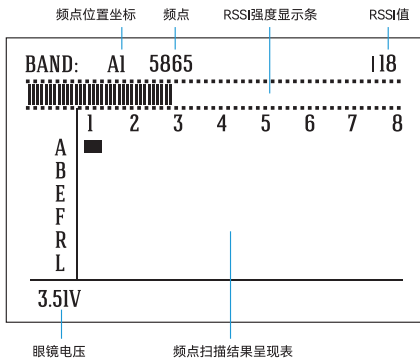
#### ● 电源拨动开关

通过左右拨动电源开关进行关闭/开启眼镜的操作，面对按键，开关位于左边位置则为关闭状态；开关位于右边位置则为开启状态。

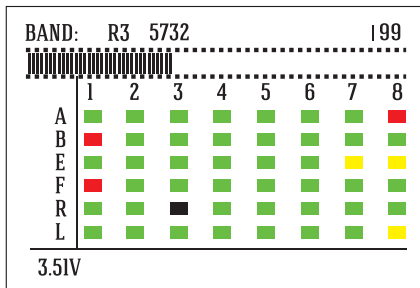
#### ● 搜频按键（S键）

快速搜频：长按搜频按键2秒钟，开始搜频，3秒钟后发出提示音，并显示对应的FPV穿越机画面，快速搜频完成。

频点扫描：短按搜频按键1次，进入扫频界面。



再长按2秒钟启动扫频，3秒后显示扫频结果。画面中不同的颜色表示各个频点目前的占用，其说明如图所示。



绿色	0<RSSI<20 没有占用
黄色	20<RSSI<70 距离较远处有飞机占用频点, 或者有干扰
红色	70<RSSI<99 有飞机占用频点
白色	代表当前眼镜所在的频点, 也是扫频结果中RSSI最高的频点

### ● 频段按键/频道按键

在频点扫描界面下, 频段按键可以循环往下选择不同的频段, 频道按键可以循环往右选择不同的频道。

通过按频段按键和频道按键调节眼镜到想要设定的频点, 比如选择绿色部分的频点, 这些频点没有人使用, 信号干扰比较小, 再设置飞机到对应频点就可以重新绑定。

### ● 录像按键

在FPV画面下, 短按录像键开启/停止录像, 长按录像键进入/退出回放界面。

注: 使用前应确认电量充足, 建议电压在3.7V以上 (短按S键查看), 将头带正确安装, 并调整到个人舒适的尺寸。

## 2.2 频点选择

本FPV眼镜支持完整的5.8G图传频点的接收。即有6个频段 (Band, 分别为Band-A、Band-B、Band-E、Band-F、Band-R、Band-L)、有8个频道 (Channel、CH-1、.....、CH-8), 一共48个频点, 如下图完整的频点表所示。

	CH 1 (MHZ)	CH 2 (MHZ)	CH 3 (MHZ)	CH 4 (MHZ)	CH 5 (MHZ)	CH 6 (MHZ)	CH 7 (MHZ)	CH 8 (MHZ)
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917
L	5362	5399	5436	5473	5510	5547	5584	5621

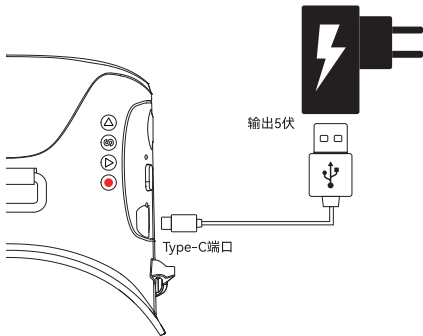
一般使用时将搜频按键长按2秒钟，自动搜索空间中信号强度最强的频点，以获得飞机的FPV画面。

当然，我们也可以短按频段按键切换到指定的频段，使用频道按键切换到指定的频道，以便让FPV眼镜工作在指定的频点上。

## 2.3 FPV眼镜充电

FPV眼镜已经内置了2000mAh的电池，无需再外接电池。当电压在低于3.4V时每隔10秒发出一次提示音，即表示需要重新充电，电压值也可通过点按S键查询。充电方式如下：

- 关闭FPV眼镜；
- 使用Type-C线连接FPV眼镜和适配器（5V输出的适配器即可，例如手机充电器）；
- FPV眼镜上电源指示灯蓝色常亮，表示正在充电中；电源灯熄灭，表示充电结束。



注意：眼镜不支持快充协议，无法快速充电。

## 3. 录像功能

### 3.1 开始/停止录像

FPV眼镜支持录像功能，短按录像键即可开始与停止录像。

- 在Micro SD卡槽插入Micro SD卡（只支持FAT32系统，且最大支持64G）；
- 短按录像键后，视频左上角会出现一个红点，并且发出滴滴两声；
- 等待8秒后视频左上方红点和录像指示灯（红色）开始闪烁，同时一行红色的数字出现并开始计时，表示开始录像；
- 短按录像按键，2-3秒之后视频左上角红点停止闪烁，计时数字消失，红色录像指示灯熄灭，表示录像停止。

录像中 已录像时长

频点位置坐标 频点 RSSI值



注意：按下录像键后大约需要8-10秒启动录像，请耐心等待。

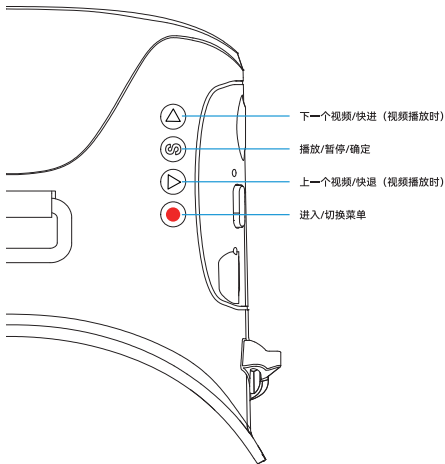
注意：每段录像的时间最长为10分钟，单次录像超过10分钟时，会自动建立一个新的录像文件。



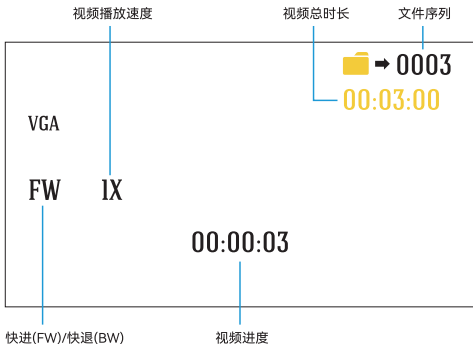
## 3.2 录像回放

FPV眼镜支持录像回放功能，操作步骤如下：

- 首先确认已插入Micro SD卡，且卡内有录制的视频文件；
- 长按录像按键2-3秒，发出滴滴滴三声，并且屏幕出现LOADING DVR...字样；
- 根据视频文件的数量和大小，等待8-10秒加载完成，进入视频回放（DVR）界面；
- 进入视频回放界面后，按键的功能改变，如下图所示；
- 在视频回放界面中再次长按录像按键2-3秒，可以退出视频回放界面。



使用上述按键可以在DVR界面进行录像切换、播放/暂停、快进/快退等操作。



注意：长按录像键后大约需要8-10秒的时间载入视频回放界面（DVR界面），请耐心等待。

## 4. 注意事项

使用后请关闭电源保存，如果长时间不使用，请每三个月充电一次，否则会损坏电池。

低电量报警后请尽快停止使用并重新充电，否则可能出现直接关机或者电池损坏的风险。