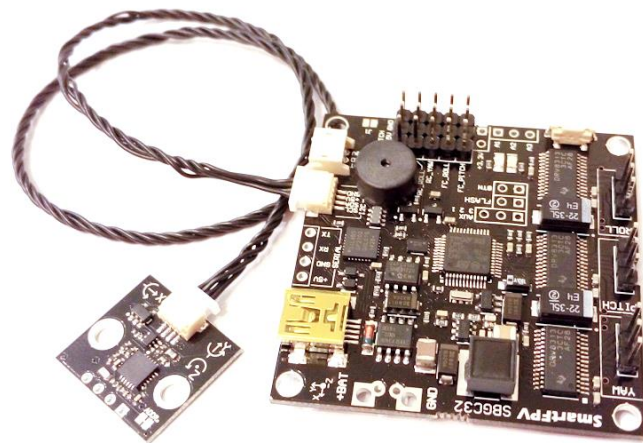


SmartFPV

SimpleBGC 32bit Datasheet

Powered by BaseCam



2/9/2015
Rev C

FUNCTIONS

3-axes brushless gimbal stabilization

Onboard Frame IMU for increased precision

Onboard Buzzer

Onboard Bluetooth module (Optional)

High processing power

Big connectivity

Reverse polarity protection

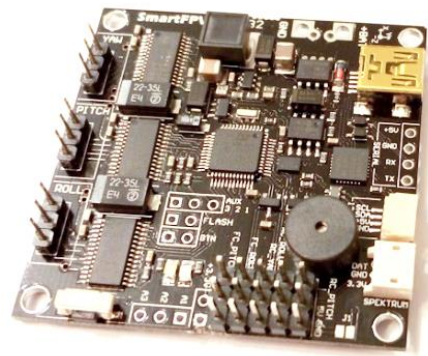
Overheating/overcurrent protection

Battery monitoring

Gimbal control with the RC or analog joystick

Switchable profiles for different gimbal configurations

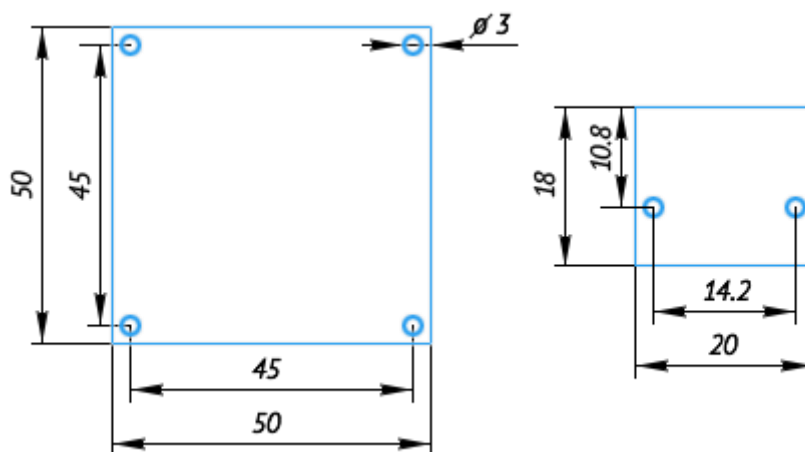
USB interface for configuring, control and upgrade from PC



All functions compatible with standard BaseCam SimpleBGC 32bit controller and all further firmware upgrades will be compatible.

SPECIFICATIONS

Controller size	50x50mm
Controller mounting holes	4xM3 holes 45x45mm
Voltage	8V-25V (3s-5s LiPo)
Current for each motor	1.5A
IMU size	18x20mm
IMU mounting holes	2xM3 distance 14.2mm
5V output current to power external devices	up to 1A



PACKAGE CONTENT

- 1x BaseCam SimpleBGC 32bit board
- 1x MPU-6050 IMU board
- 1x 30cm cable for IMU

USER MANUAL

All features and operations of this brushless gimbal controller are identical to standard BaseCam SimpleBGC. Latest Firmware and User Manual can be found on BaseCam website. Described in this document are special features of SmartFPV produced SimpleBGC that are different from standard SimpleBGC.

Software & User Manuals: www.basecamelectronics.com/downloads/32bit/
Developer site: www.basecamelectronics.com/simplebgc32bit/
Manufacturer site: www.SmartFPV.com

SPECIAL FEATURES

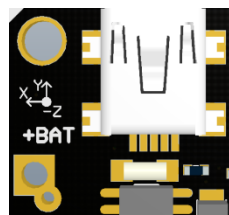
Onboard Buzzer

This board has onboard buzzer and has no need and no possibility to connect external buzzer.

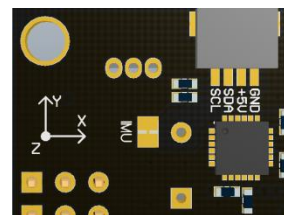
Onboard Frame IMU

This board is equipped with onboard Frame IMU making installation much easier by eliminating need of second external IMU and additional wiring.

You must take in to account everything regarding Frame IMU orientation and configuration when installing and configuring SimpleBGC board. There are axis marks on SimpleBGC board for Frame IMU orientation.



SimpleBGC Top



SimpleBGC Bottom

SimpleBGC board top is $-Z$ axis, X axis is going to power connection edge and Y axis to USB connector edge.

You can also use external Frame IMU. To do that you need to disable onboard Frame IMU by cutting small trace between "IMU" solder jumper pads at SimpleBGC board bottom side.

To re-enable disabled onboard Frame IMU solder both "IMU" solder jumper pads together and disconnect external Frame IMU.

Board has 2 external IMU connectors so you can connect external Camera and Frame IMU's. There is no difference which IMU connector is used for which IMU.

Onboard Bluetooth Module

This board can be supplied with onboard Bluetooth module. Please check description in seller's store.

You can configure SimpleBGC over Bluetooth from your PC or Laptop that has Bluetooth or using you Android phone (www.basecamelectronics.com/downloads/android/).

Before you use GUI to connect to SimpleBGC you have to pair impleSBGC Bluetooth module with your PC or smartphone.

When searching for SimpleBGC Bluetooth module, look for "SBGC32" device in your Bluetooth search list and connect to it. Use pin code 1234 to pair module.

After pairing with SimpleBGC Bluetooth module use GUI software as usual.