

## EWRF 5.8G FPV VTX OSD Setting

EWRF 5.8G Audio/Video transmitters work well with several other commonly used Betaflight/Cleanflight FCs when using OSD setting. Almost all F3 and F4 targets (except for those with integrated VTx) are supported.

Refer below on how to use OSD setting to change your VTx parameters. EWRF VTx's settings of bands, channels, power and Pitmode through OSD is dependent on the flight controller firmware.

### 1 Connection and configuration

#### 1.1 F3/F4 flight controllers with integrated BetaFlight OSD

- Wire three pins PWM/OSD, VIDEO IN and GND of the VTX to the
- PWM/OSD OUT to the Tx pin of an free Uart
- VIDEO OUT and GND to the Flight Controller accordingly.
- Ensure the Flight Controller is running Betaflight firmware Release 3.1 or later.
- Then connect the FC to Betaflight configurator.
- Make sure "VTX" button in the configuration tab is enabled

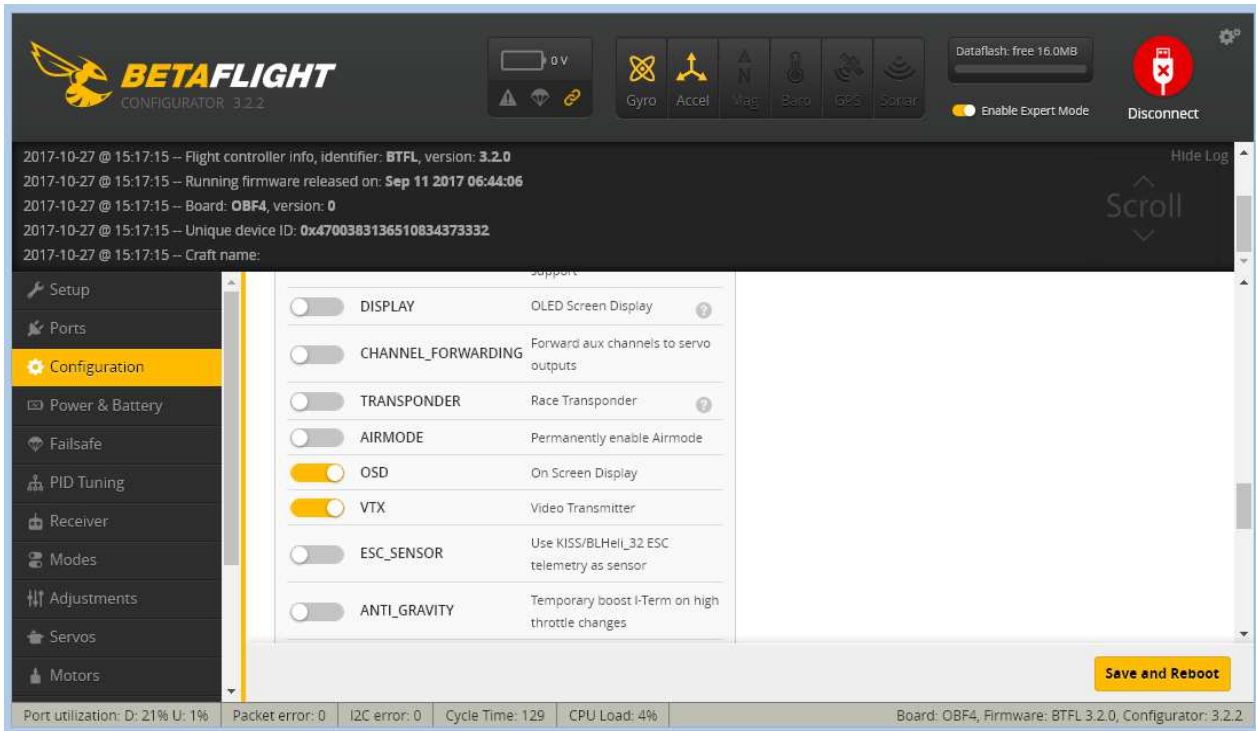
#### 1.2 Port Configuration

Open Ports tab, on UART Port that the VTx is connected to, select TBS SmartAudio from Peripherals drop down menu

2017-05-11 @ 14:10:50 — Unique device ID received - 0x5400393236511832323539

Port Identifier	Configuration	Serial Rx	Telemetry Output:	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled   AUTO	Disabled   AUTO	Disabled   AUTO
UART1	<input type="checkbox"/> MSP 115200	<input checked="" type="checkbox"/> Serial RX	Disabled   AUTO	Disabled   AUTO	Disabled   AUTO
UART3	<input type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled   AUTO	Disabled   AUTO	Disabled   AUTO
UART6	<input type="checkbox"/> MSP 115200	<input type="checkbox"/> Serial RX	Disabled   AUTO	Disabled   AUTO	TBS SmartAudio   AUTO

Port utilization: D: 12% U: 1% Packet error: 0 I2C error: 0 Cycle Time: 127 CPU Load: 3%



## 2 Accessing Betaflight OSD

### 2.1 Getting into Betaflight OSD CMS (Configuration Menu System)

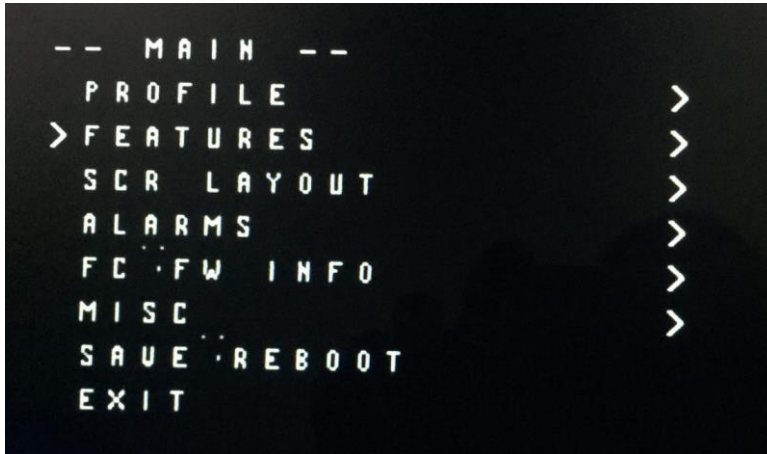
When powering up your craft, the below screen will appear on your FPV receiver screen receiver. To access the OSD setting page: Throttle middle, Yaw left and Pitch up



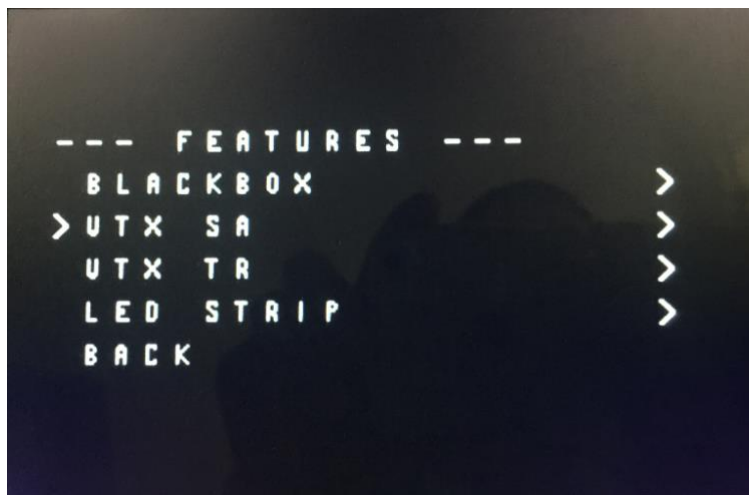
### 3 BAND and Channel Setting

Use Pitch stick to move the cursor and select FEATURES

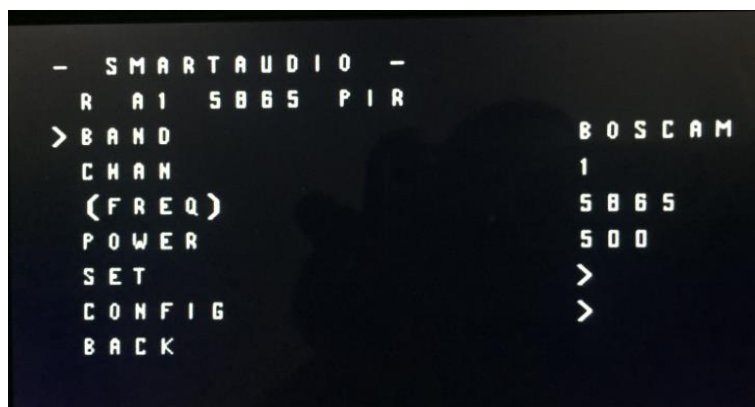
Use Roll stick to enter FEATURES Menu shown below:



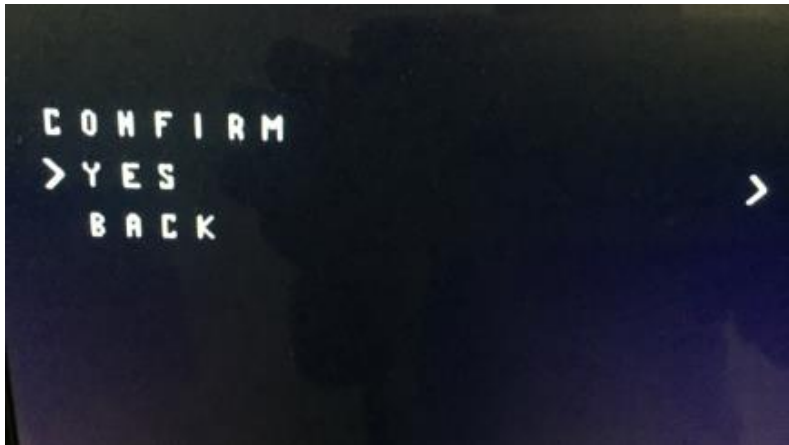
Select VTX SA and enter its menu as shown in figure below. Within the VTX SA menu, use Roll stick to choose the band.



**Notes:** EWRF AV transmitters support 48 channels, however they are selectable only through the button on the VTX (NOTE only if the VTx's OSD wire is NOT connected to the FC). Currently channel and band selection through Betaflight OSD only supports 40 channels.



After choosing the band and channel, navigate to SET and select YES to save your setting.



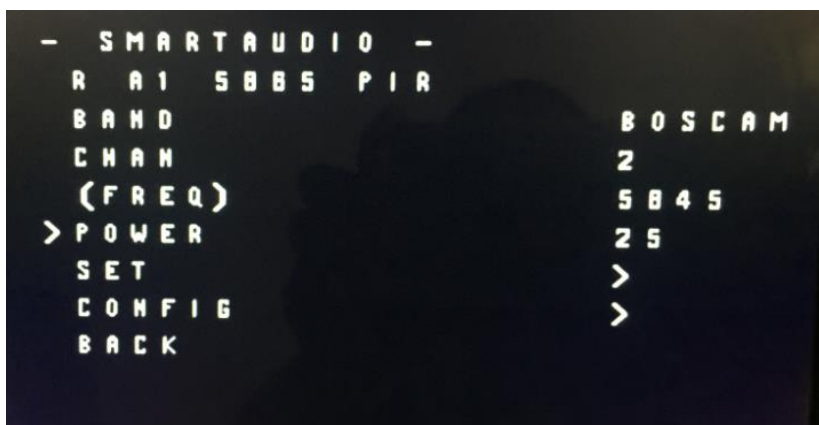
#### 4 Transmitting Power Setting

Follow the same procedure as in the previous section navigate to POWER.

EWRf e708/709TM3 support only three transmitting powers of 25mw, 200mw and 600mw. There are four power options of 25mw, 200mw, 600mw and 800mw in the menu of OSD setting. When you make power selection, please note that the selecting of 500mw or 800mw the VTx transmitting power will be 600mw.

EWRf 7082TM supports transmitting power of 25mw, 100mw and 200mw, note that selecting 25mw in the OSD the VTx will be set to 25mw, the 200mw selection it will be 100mw and with 600mw or 800mw selection it will be 200mw.

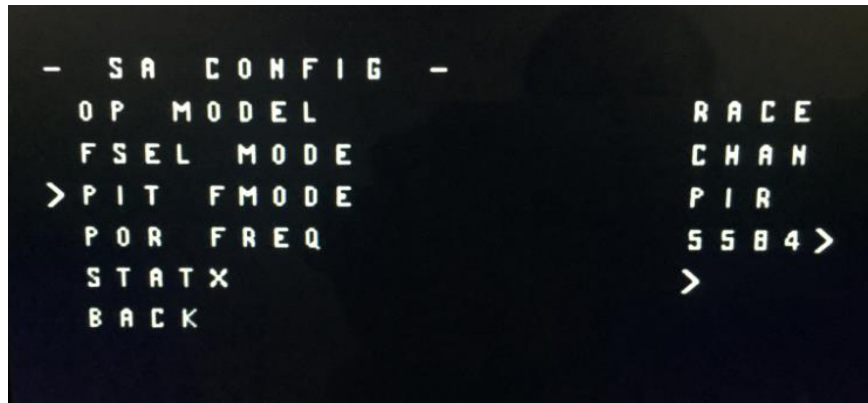
**Notes:** Power setting is effective immediately which is different from the setting of the band and channel which requires SAVE to be executed.



## 5 PitMode Setting

PitMode is a feature that set the VTx to a very low amplitude of power output, it allows the user to power up the video transmitter for settings changes or perform checks on the craft without interfering with others. When in PitMode, the VTx transmitting distance is less than 2 meters.

To set PITMODE from the OSD, navigate to CONFIG, then select PitMode setting shown below.



Using the Pitch stick move the cursor to PIT FMODE, use the Roll stick to toggle:

- left to exit the PitMode (PIR)
- right to enter the PitMode (POR)

Notes: After powering up the VTx and FC again, PitMode status will be saved even if the default PIR will display on the screen upon powering up. Ignore “POR or PIR” if it appears on the screen. The indication of PITMODE status is from the LEDs mode on the VTx (see specific VTx manual for information).