

FPV RACING RUSH TANK II S.80HZ VTX USER MANUAL

! WARNINGS Please read this user manual before use.

- The user needs to have the relevant professional knowledge when installing or operating the VTX Product, any improper use may cause potential danger. Please ensure that you have the necessary skills required to operate radio equipment or operate under the guidance of a professional. Read this manual carefully before attempting to install. The user accepts responsibility for any personal injury and property damage caused by ignoring the following statements or violating the operating regulations.
- Do not touch the VTX when in use as it will get hot and can cause burns, please mount in a way to ensure adequate airflow to provide cooling. Follow the wiring diagram to ensure the correct cable and plug fitments. It is important to install the antenna correctly before powering up the VTX to avoid any damage to the precision components inside. Do not disassemble, repair or modify this product personally. Contact your dealer for technical support if you have any questions or problems with the product.
- Follow all local radio regulations, a HAM license is required for some channels and power levels, you may need to notify the local radio regulatory agency before using some frequencies. Ensure you abide by all local laws and regulations for drones and transmitting power and some frequencies. It is strictly forbidden to fly in no-fly zones such as Airports, Military Facilities or overcrowded areas.

Specifications

- LOCK-ON TECH eliminates frequency drift.
- All channel power calibration.
- No frequency sweep, no interference.
- 7-36V 6S HV input, Dual power filter.

POWER LEVEL: PIT-25mW-200mW-500mW-800mW CHANNEL: 48CH/37CH(US)

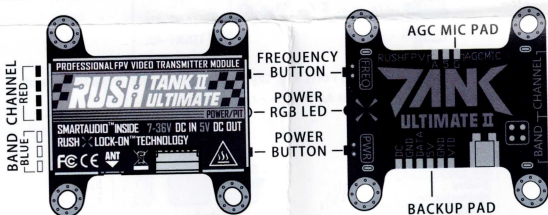
INPUT VOLTAGE: DC 7-36V (6S LIPO) OUTPUT VOLTAGE: DC 5V (Max 600mA)

VIDEO FORMAT CVBS PAL/NTSC AUDIO: 6.5M MONO (SUPPORT RUSH AGC MIC)

DIMENSIONS: H 36.5mm * W 36.5mm * D 5.2mm WEIGHT: 7.2g (WITHOUT CABLE)

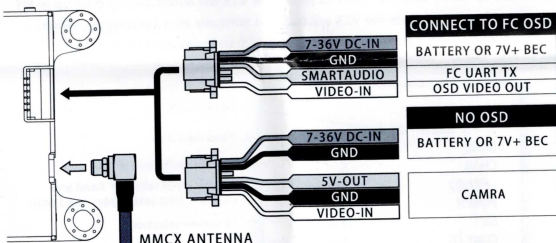
EXTERNAL CONTROL: SMARTAUDIO (TBS authorized commercial)

Feature



Short Press **FREQUENCY BUTTON** to change the channel, Long Press to change Band.
Short Press **POWER BUTTON** to change the power level, Long Press to turn PIT MODE ON/OFF

WIRING DIAGRAM IMPORTANT



- You must connect the antenna before powering on the unit!
- 5v output is to power the camera only, Do not connect to a power input or battery supply, this will cause damage to the VTX!
- For the best video image, always try to keep video signal cables away from components such as an ESC that can cause electrical interference.

POWER/FREQUENCY DISPLAY

FREQUENCY TABLE

• LED OFF ✨ LED FLASH ✨ LED ON

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

POWER LEVEL

When the power LED indicator flashes, the VTX is set to PIT mode, long press the power button in order to exit PIT mode and use the current power level.

LED COLOR	GREEN	YELLOW	RED	PURPLE
POWER	25mW	200mW	500mW	800mW

The selections in requires HAM license to operate legally. selections are only available on special request (the US version does not include these channel).

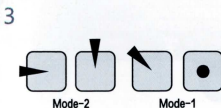
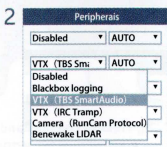
SMARTAUDIO

RUSH TANK has built-in official licensed TBS SmartAudio protocol when the VTX is connected to the FC or CF receiver the VTX parameters can be quickly set via the OSD or Radio control.

1. Connect the SmartAudio port to a spare UART-TX on the Flight Controller.

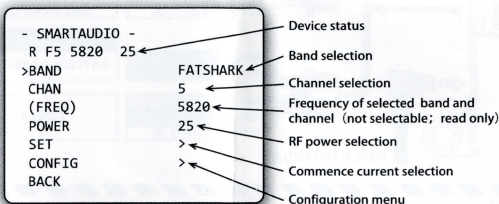


2. Open BetaFlight configurator, go to Ports Tab, Select TBS SmartAudio from Peripherals dropdown menu, Speed can be left at AUTO, then save settings.



3. Turn on the radio control, THR middle then YAW left and PITCH up to enter the OSD menu. Select FEATURES menu > VTX SA menu, set the VTX to working state.

4. In the CONFIG menu, when set to RACE mode the VTX will automatically boot up in PIT mode, when set to FREE mode the VTX will transmit normally after booting up. When switching between modes you will need to disconnect and reconnect the power for the setting to take effect.



SmartAudio VTX top menu (Band/Channel mode)

For more information please visit:
<https://github.com/betaflight/betaflight/wiki/Unify-Smartaudio>