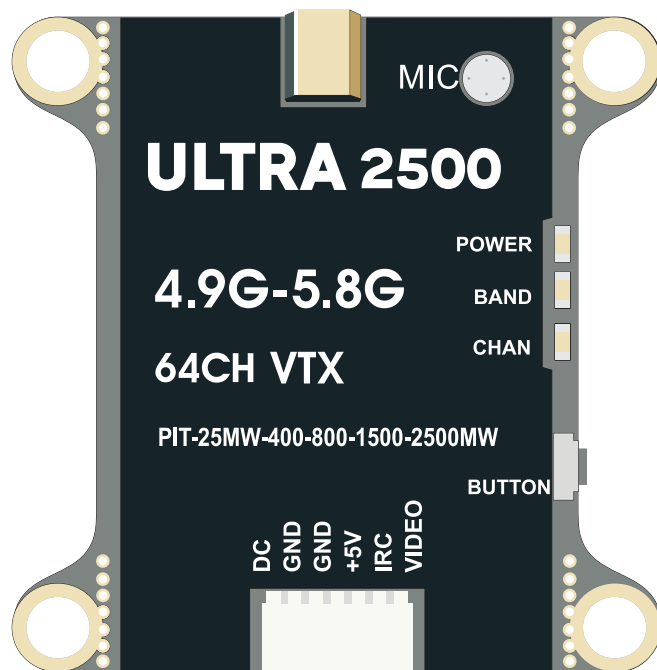




# ULTRA 2500

## 4.9G- 5.8G

### 64CH VTX

# User Manual

# Specification

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Model: Ultra2500 VTX 4.9G-5.8G 2.5W

Input voltage: DC 7-36V(2-8S Battery)

Output: 5V@600mA(Power 5V to camera)

Input impedance: 75Ω

Protocol: IRC Tramp

Antenna connector: MMCX connector

Cable connector: GH1.25-6P connector

Output power: 25mW/400mW/800mW/1500mW/2500mW/Pit mode

Frequency tables: 64 CH

Video format: PAL / NTSC

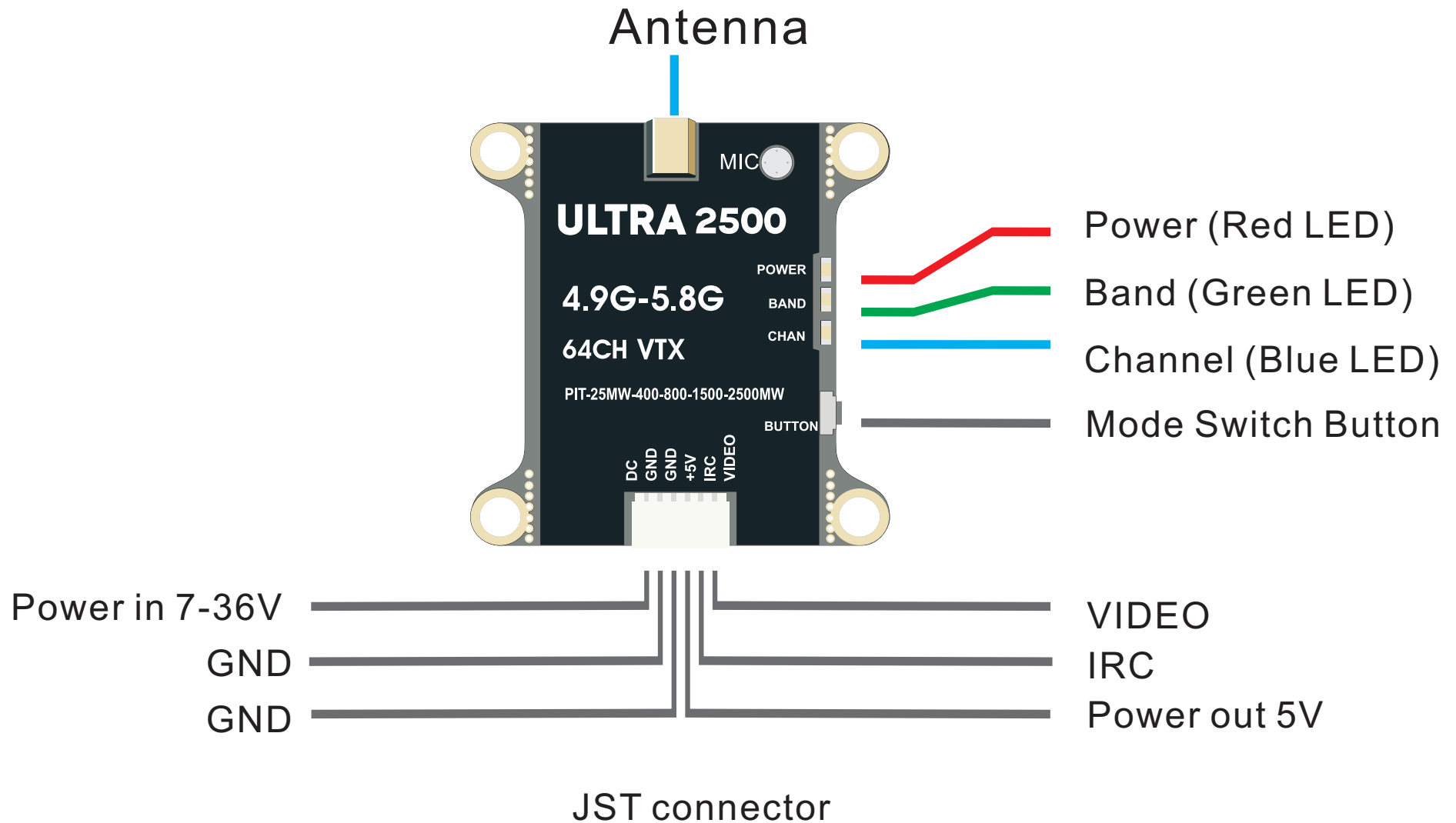
Microphone: Built in microphone

Size: 36.5mmx36.5mmx12mm

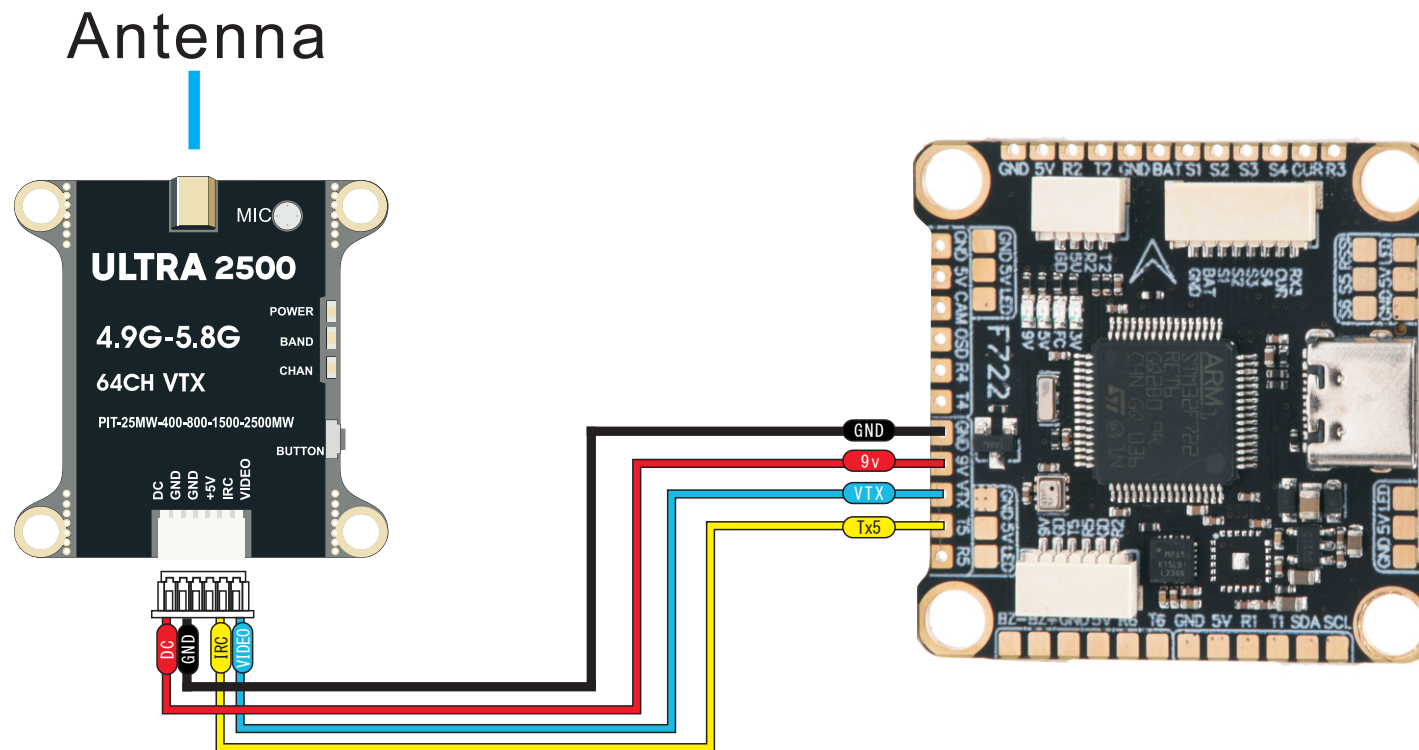
Weight: 15g(without cable)

Mounting holes: 30.5mmX30.5mm(M3)

# Instruction Diagram



# JST Connection



## WARNING:

1. Install antenna before use.
2. To prevent overheating, provide constant airflow and a well ventilated environment. Install a cooling fan if operating in confined conditions.
3. The 5V Output is just used for a Camera/Cooling Fan! Don't connect Power Input / Battery to 5V Output port. Otherwise the VTX will be damaged.

# Features

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1. 2.5W super-power ,suitable for Long Range flight with good stability.
2. Six power levels: 25mW/400mW/800mW/1500mW/2500mW/Pit mode .
3. Two-layer board cooling structure,separate power BEC and main-board,reducing and shielding from the insinal interference.
4. Temperature control protection function that can prevent high temperature burning.
5. Wide voltage input, supports 7V-36V voltage input.
6. VTX control protocol is IRC Tramp,supports OSD parameter adjustment.
7. VTX built in microphone,real-time return of Drone's sounds.
8. Has 3 regional frequency tables to meet the needs of various regions.
9. One function buttons, three indicator lights, easy to operate.
10. Mounting holes is 30.5mmx30.5mm.

# How to set

## 1. How to set Channel:

Press and hold for 2 seconds to enter the Channel Selection, Blue light flashing Short Press 1 seconds to change the channel:

| LED Color | CH1      | CH2      | CH3      | CH4      | CH5      | CH6      | CH7      | Ch8      |
|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| Blue      | Flash 1X | Flash 2X | Flash 3X | Flash 4X | Flash 5X | Flash 6X | Flash 7X | Flash 8X |

## 2. How to set Band:

Press and hold for 2 seconds to enter the Band Selection, Green light flashing Short Press 1 seconds to change the Band:

| LED Color | Boscam_A | Boscam_B | Boscam_E | FATSHARK | Race Band | Boscam_D | LOWRACE  | Boscam_X |
|-----------|----------|----------|----------|----------|-----------|----------|----------|----------|
| Green     | Flash 1X | Flash 2X | Flash 3X | Flash 4X | Flash 5X  | Flash 6X | Flash 7X | Flash 8X |

## 3. How to set Power:

Press and hold for 2 seconds to enter the Power Selection, Red light flashing Short Press 1 seconds to change the Power

| LED Color | 25mW     | 400mW    | 800mW    | 1500mW   | 2500mW   | Pit      |
|-----------|----------|----------|----------|----------|----------|----------|
| Red       | Flash 1X | Flash 2X | Flash 3X | Flash 4X | Flash 5X | Flash 6X |

# Frequency Table

| Channel   | CH1  | CH2  | CH3  | CH4  | CH5  | CH6  | CH7  | CH8  |
|-----------|------|------|------|------|------|------|------|------|
| Boscam_ A | 5865 | 5845 | 5825 | 5805 | 5785 | 5765 | 5745 | 5725 |
| Boscam_ B | 5733 | 5752 | 5771 | 5790 | 5809 | 5828 | 5847 | 5866 |
| Boscam_ E | 5705 | 5685 | 5665 | 5645 | 5885 | 5905 | 5925 | 5945 |
| FATSHARK  | 5740 | 5760 | 5780 | 5800 | 5820 | 5840 | 5860 | 5880 |
| Race Band | 5658 | 5695 | 5732 | 5769 | 5806 | 5843 | 5880 | 5917 |
| Boscam_ D | 5362 | 5399 | 5436 | 5473 | 5510 | 5547 | 5584 | 5621 |
| Low Race  | 5362 | 5399 | 5436 | 5473 | 5510 | 5547 | 5584 | 5621 |
| Boscam_ X | 4990 | 5020 | 5055 | 5080 | 5110 | 5140 | 5170 | 5200 |

# Support IRC Tramp Protocol

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Ultra2500 VTX supports the IRC TRAMP protocol and the modification of video transmission parameters through the remote control, including frequency, working power and so on.

NOTE: For BetaFlight flight controller firmware above BetaFlight 4.1.0, you need upload a VTX Table to the flight controller before using the remote control to modify the video transmitter parameters normally.

ULTRA2500\_VTX\_25W.json

For the use of the video transmitter table, please refer to this article  
“How to Setup Betaflight VTX Table – SmartAudio Tramp VTX Control”  
by Oscar Liang



# Remote control

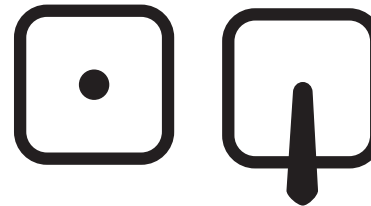
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Note: Take Mode-2 for example

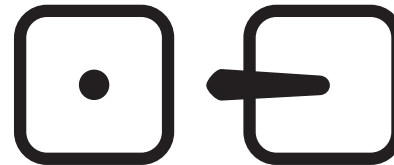
BFCMS-FEATURES-VTX TR



Change Selection



Edit Setting Values



# Include

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1 x Ultra2500 VTX 2.5W

1 x MMCX connector to SMA connector 82cm

1 x GH 1.25-6P connector cables 150mm

