HOBBYWING®

X-Rotor Video Transmitter
USER MANUAL

Thank you for purchasing this HOBBYWING product! We strongly recommend reading through this user manual before use. Because we have no control over the use, installation, or maintenance of this product, no liability may be assumed for any damage or losses resulting from the use of the product. We do not assume responsibility for any losses caused by unauthorized modifications to our product. Besides, we have the right to modify our product design, appearance, features and usage requirements without notification. We, HOBBYWING, are only responsible for our product cost and nothing else as result of using our product.
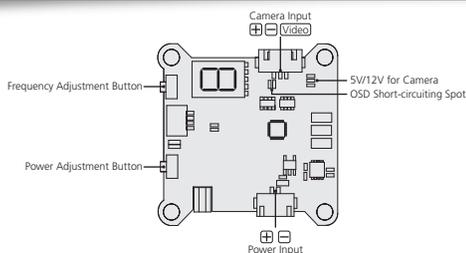
20170919

01 Warnings

- Read through this user manual before use.
- Ensure the heat dissipation is good, as this unit may generate much heat during use.
- Ensure all wires and connections are well insulated before connecting the unit to related devices, as short circuit will damage it.
- Pay attention to the static prevention during transportation and installation.
- Ensure to solder all the wires & connectors well and not get soldering tin on any electronic components. We won't be responsible for any damage resulting from soldering and installation.
- Never use the joint pins beyond the ones included in the product box to fix or connect the FC (Flight Controller), ESC and video transmitter (VTX), because the heights from pins to sockets between VTX and FC, FC and ESC are specified/fixed. If the joint pins are too short, then they will cause the PCBs to deform and damage the components (on the PCBs) ; if they are too long, then they will affect the connection between pins and sockets and cause damage to relevant devices. We won't be responsible for the damage or losses resulting from users' carelessness.
- Never fly the aircraft above or near crowd, we won't assume any losses resulting from the crash of the aircraft.
- Never use this unit near heat, moisture, strong acid or alkali and under other environmental conditions that bad for electronic components.
- Ensure the antenna has been connected to the output end of the VTX before connecting the VTX to a power supply.
- Ensure the input voltage is within the specified range and there is no backward installation, otherwise the internal components may get damaged.
- Choose an antenna with good standing waves & gains to achieve a long transmission distance if you want to change the antenna.
- Different nations have different regulations over the radio frequencies and transmitting power, so please get familiar with the local regulations before using this product.

02 Specifications

Model	5.8GHz Video Transmitter
Frequency	5.3GHz-5.9GHz
Power	0 / 25mW / 200mW
Current	70mA / 100mA / 250mA @ 12V
VTX Port	SMA Female Connector
Antenna Port	SMA Male Connector
Supply Voltage	7-25V
Size	36x36mm
Pitch-row	30.5x30.5mm

03 Layout & Ports of the Video Transmitter (VTX)

Camera Input — Video
Frequency Adjustment Button
Power Adjustment Button
5V/12V for Camera
OSD Short-circuiting Spot
Power Input

- Short circuit the two OSD soldering points when using the VTX separately, and do not short circuit the two points when pairing the VTX with the Hobbywing F4 flight controller and XRotor Micro 40A 4-in-1 ESC.
- Short circuit the corresponding two soldering points to select the supply voltage of 5V/12V. If short circuit the upper two points, then the VTX will provide the voltage of 12V to the camera; if short circuit the lower two points, then the VTX will provide the voltage of 5V to the camera.

04 Parameter Adjustment

- **Power Adjustment**
  Every time you press the "Power Adjustment Button" can switch the transmitting power from the current value (i.e. 0/25mW/200mW) to the next value (i.e. 25mW/200mW/0). Press the button for 10 seconds to adjust the transmitting power from 0 to 20mW, indicating the power output is unleashed and it will be at 25mW; press the button for 2 seconds to adjust the power from 25mW to 200mW, indicating the output will be at 200mW. Either the Green LED or the Red LED will come on when "0" is selected; only the Green LED will come on when "25mW" is selected, and only the Red LED will come on when "200mW" is selected.

- **Frequency Adjustment**
  If the LED segment display on the VTX displays "C8", then it means the corresponding frequency is 5725MHz (as shown in the form below).
  Frequency adjustment: press the "Frequency Adjustment Button" for 2 seconds to enter the frequency adjusting mode, and the LED segment display starts to flash; press the same button to change the frequency, the frequencies are circularly displayed (from A to F); and press the same button for 2 seconds to save the setting and exit the mode after selecting the corresponding frequency.
  Channel adjustment: press the "Frequency Adjustment Button" for 2 seconds to enter the channel adjusting mode, and the LED segment display starts to flash; press the same button to change the channel, the channels are circularly displayed (from 1 to 8); and press the same button for 2 seconds to save the setting and exit the mode after selecting the corresponding channel.
  Note: you need to adjust the frequency and the channel by turns. That's to adjust the channel after adjusting the frequency or adjust the frequency after adjusting the channel.

- **Frequency Chart**

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

* The frequencies in row D & row F are race bands. Pilots can use the eight frequencies in the same row at the same time without worrying about any interference among each other.

Attention! Different nations have different rules over the radio frequencies and transmitting power, so please get familiar with the local rules s before use.