

20180119



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.

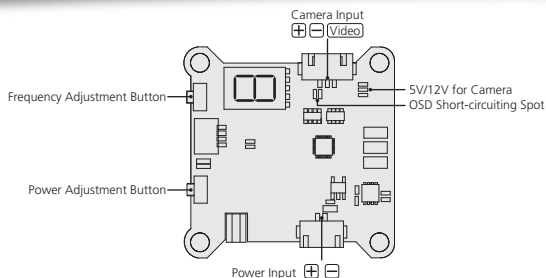
## 01 Warnings

- 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/fixes. 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 / 600mW
Current	70mA / 100mA / 250mA / 350mA @ 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)



- 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

### 1. Power Adjustment

Every time you press the "Power Adjustment Button" can switch the transmitting power from the current value (i.e. 0/25mW/200mW/600mW) to the next value (i.e. 25mW/200mW/600mW/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 (more) seconds to adjust the power from 25mW to 200mW, indicating the output will be at 200mW; and press the button for 2 (more) seconds to adjust the power from 200mW to 600mW, indicating the output will be at 600mW. Neither the Red LED nor the Green LED will come on when "0" is selected, only the Green LED will come on when "25mW" is selected, only the Red LED will come on when "200mW" is selected, both the Green LED and the Red LED will come on when "600mW" is selected.

### 2. Frequency Point Adjustment (Frequency Set-Channel forms Frequency Point)

If the LED segment display on the VTX displays "A1", then it means the corresponding frequency is 5740MHz (as shown in the form below).

**Frequency Set 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.

### 3. Frequency Set adjustment & Channel Adjustment (by turns): that's to adjust the channel after adjusting the frequency or adjust the frequency after adjusting the channel.



Some frequency points are not accessible by default, users need to unlock them before use.

## 05 Unlock



- The unit by default is in compliance with relevant CE & FCC regulations.
- Different nations have different regulations over the radio frequencies & transmitting power and also require that users of radio equipment must own relevant licenses like the HAM license, so please get familiar with the local regulations before using this product.
- Once those frequency points are unlocked, we'll assume that you've gotten familiar the rules and you own relevant licenses. Users instead of Hobbywing will be liable for all the problems resulting from the use.

• **Frequency Point -Frequency Table:** relevant frequency points are locked by default. The following frequencies highlighted with shadow are inaccessible by default.

Channel	1	2	3	4	5	6	7	8
Frequency A	5740 MHz	5760 MHz	5780 MHz	5800 MHz	5820 MHz	5840 MHz	5860 MHz	5880 MHz
B	5705 MHz	5686 MHz	5665 MHz	5645 MHz	5885 MHz	5905 MHz	5925 MHz	5945 MHz
C	5865 MHz	5845 MHz	5825 MHz	5805 MHz	5785 MHz	5765 MHz	5745 MHz	5725 MHz
D	5658 MHz	5695 MHz	5732 MHz	5769 MHz	5806 MHz	5843 MHz	5880 MHz	5917 MHz
E	5733 MHz	5752 MHz	5771 MHz	5790 MHz	5809 MHz	5828 MHz	5847 MHz	5866 MHz
F	5362 MHz	5399 MHz	5436 MHz	5473 MHz	5510 MHz	5547 MHz	5584 MHz	5621 MHz
Power		0mW	25mW	200mW	600mW			

\* Row D & row F are race bands, Pilots can use the eight frequency points/frequencies in the same row at the same time without worrying about interference.

### • Unlocking

Press the "Power Adjustment Button" and the "Frequency Adjustment Button" (at the same time) for 5 seconds to enter the "unlocking" mode. After entering the mode, press the "Power Adjustment Button" to change the unlocking or locking status. Press "Power Adjustment Button" and the "Frequency Adjustment Button" for 5 seconds again to save the setting and exit the mode. After entering the unlocking mode, the LED segment display on the VTX will display the current status; "L" indicates "Lock" and "U" indicates "Unlock".