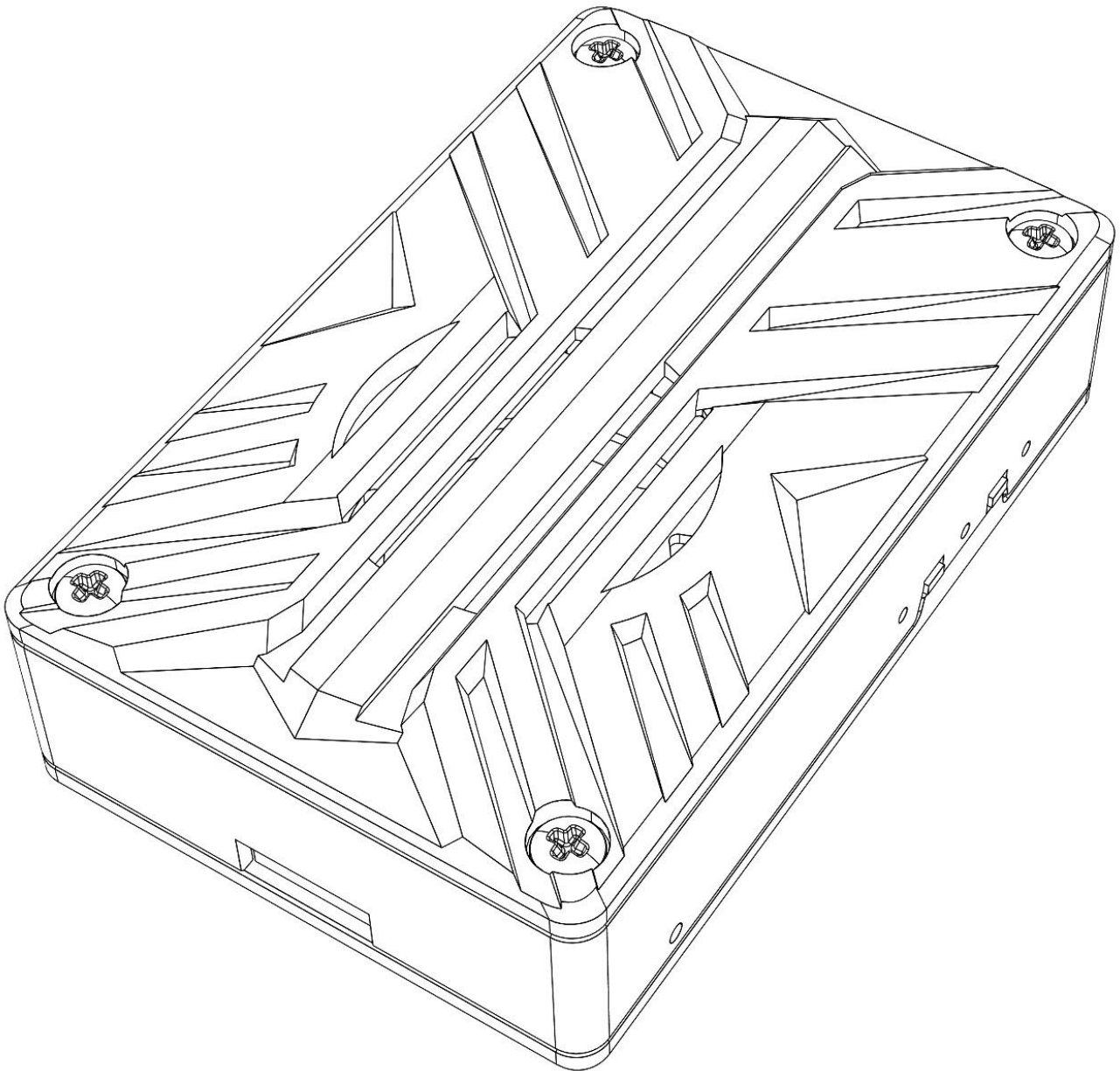


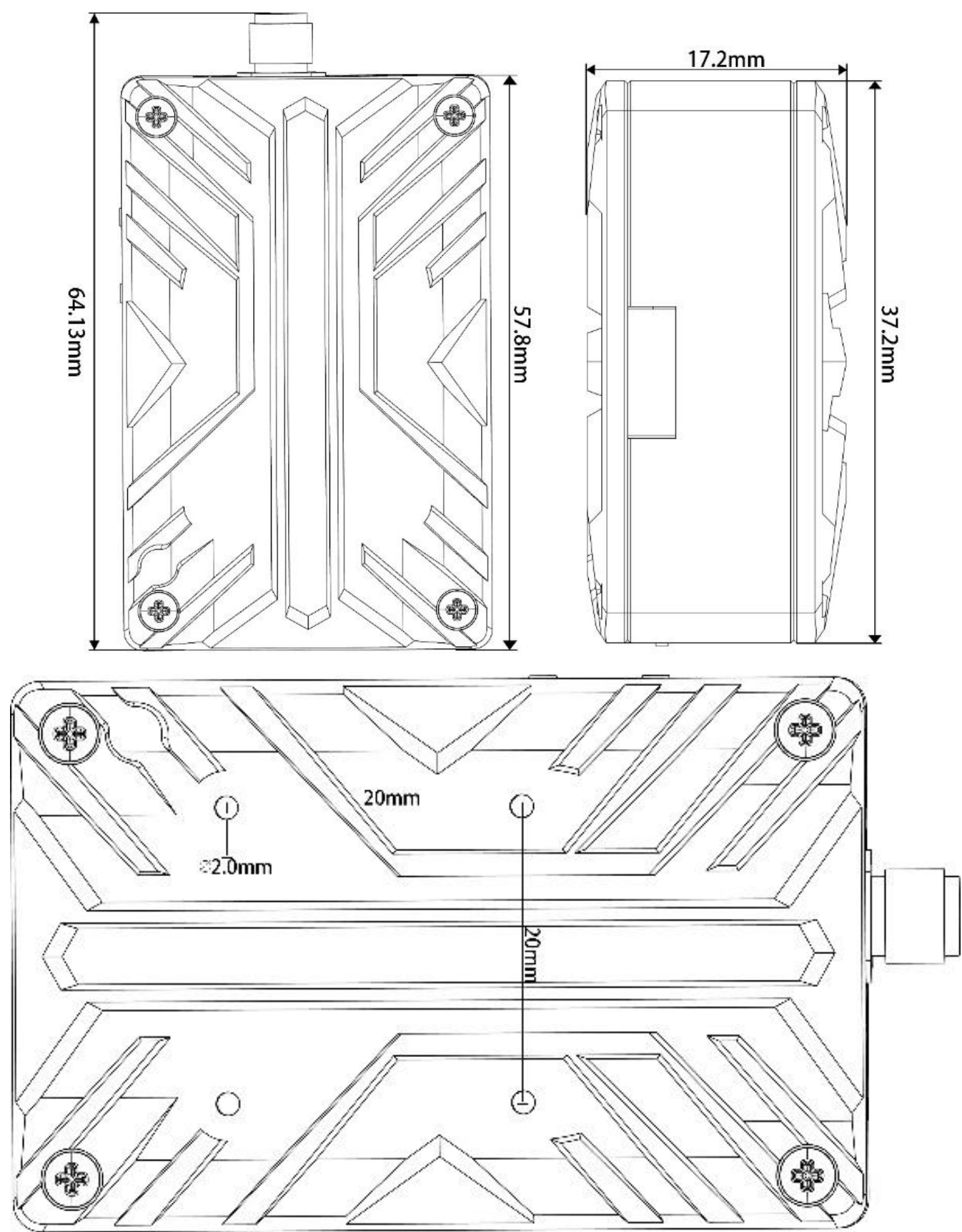
7 GHz-8.5 GHz 5 W VTX Module User Manual

1. Product Appearance



Product appearance reference.

2. Product Dimensions

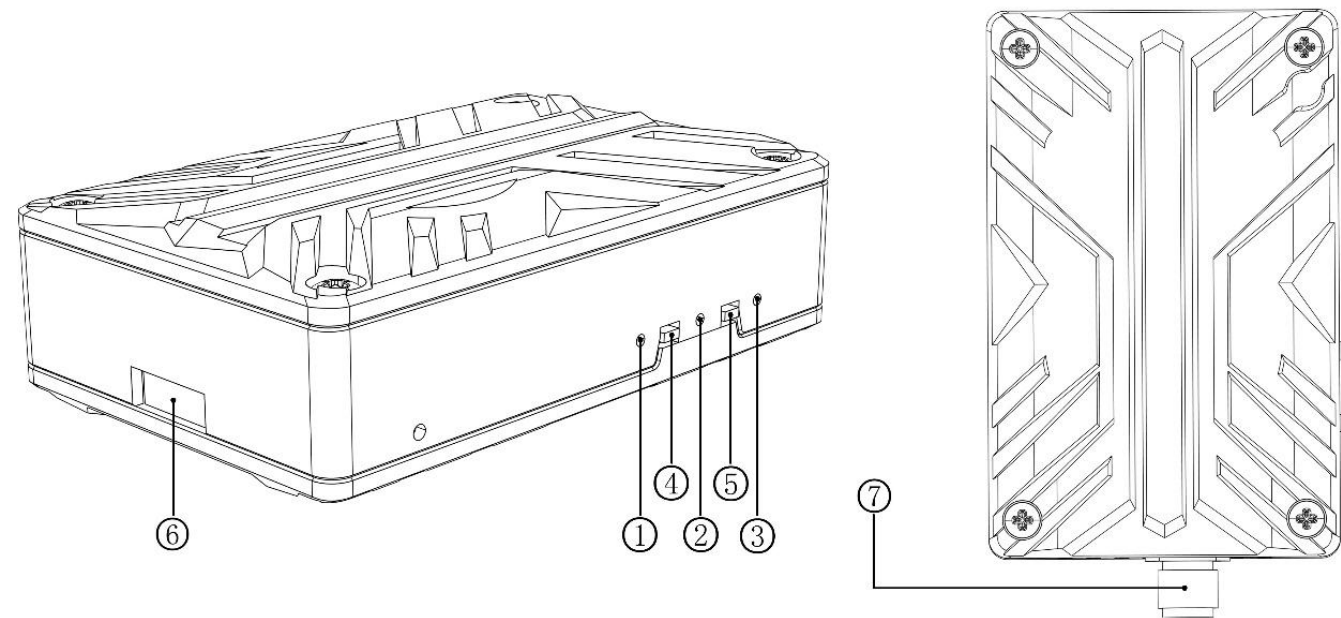


Dimensions and mounting-hole layout. Unit: mm.

3. Specifications

Item	Specification
Frequency range	7 GHz-8.5 GHz; 80 preset frequencies (7060 MHz-8500 MHz)
Maximum RF output power	5 W; adjustable levels: 0 mW / 25 mW / 2.5 W / 5 W
Input voltage	DC 15-36 V; supports 2S-8S battery input
Antenna connector	SMA female connector
Communication protocol	IRC Tramp
Cooling method	Aluminum-alloy enclosure + heatsink + cooling fan
Mounting pattern	20 mm x 20 mm / ø2.0 mm
Product dimensions	64.13 mm x 37.2 mm x 17.2 mm
Product weight	56 g

4. Interface, Button and LED Layout



Interface and button/LED position reference.

No.	Description
1	Channel indicator: red LED
2	Band indicator: blue LED
3	Power indicator: green LED
4	Band/channel adjustment button
5	Power adjustment button
6	1.0 mm 8-pin ribbon-cable connector
7	SMA female antenna connector

5. Button Controls and LED Indicator Definitions

Button 4 is used for channel and band selection. Short-press Button 4 once to switch to the next channel. The corresponding red LED flashes in sequence from CH1 to CH8; the sequence repeats cyclically.

Operation	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Red LED	1 flash	2 flashes	3 flashes	4 flashes	5 flashes	6 flashes	7 flashes	8 flashes

Long-press Button 4 for 5 seconds to switch bands. The corresponding blue LED flashes in sequence through Band A, B, E, F, I, R, P, H, U and O; the sequence repeats cyclically.

Operation	Band A	Band B	Band E	Band F	Band I	Band R	Band P	Band H	Band U	Band O
Blue LED	1 flash	2 flashes	3 flashes	4 flashes	5 flashes	6 flashes	7 flashes	8 flashes	9 flashes	10 flashes

Button 5 is used for power adjustment. Short-press Button 5 once to switch to the next power level. The green LED indicates the current power level as shown below. Long-press Button 5 for 3 seconds to enter Pit Mode; the green LED remains solid on.

Operation	Pit Mode	0 mW	25 mW	2500 mW	5000 mW
Green LED	Solid on	1 flash	2 flashes	3 flashes	4 flashes

Note: This VTX is equipped with temperature protection. When the VTX temperature exceeds 100°C, the output power will automatically decrease by one level. If the temperature remains above 100°C, the output power will continue to decrease step by step until it reaches the minimum level of 25 mW. When the temperature drops to 95°C, the output power returns to the originally selected level.

6. Channel Frequency Table

Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Band A	7060	7080	7100	7120	7140	7160	7180	7200
Band B	7220	7240	7260	7280	7300	7320	7340	7360
Band E	7380	7400	7420	7440	7460	7480	7500	7520
Band F	7540	7560	7580	7600	7620	7640	7680	7700
Band I	7720	7740	7760	7780	7800	7820	7840	7860
Band R	7880	7900	7920	7940	7960	7980	8000	8020
Band P	8040	8060	8080	8100	8120	8140	8160	8180
Band H	8200	8220	8240	8260	8280	8300	8320	8340
Band U	8360	8380	8400	8420	8440	8460	8480	8500
Band O	7215	7385	7555	7735	7915	8095	8285	8475

7. Betaflight Frequency Definition

1. The user may select any desired frequency within the 4867-7210 MHz range, such as 4888 MHz, 4999 MHz or 5111 MHz.
2. In Betaflight, the numerical value entered corresponds directly to the desired frequency. For example, to select 4888 MHz, enter 4888 in Betaflight.

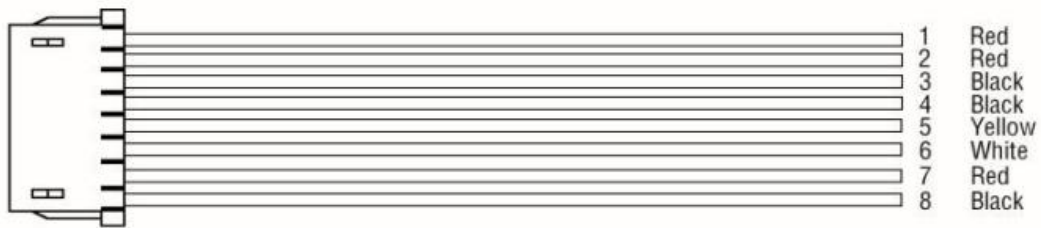
Usage notes:

If a frequency that is not included in the VTX frequency table is set in Betaflight, such as 4888 MHz, and the flight controller is connected to the VTX through IRC Tramp, the physical buttons cannot be used. The blue and red LEDs will remain solid on, while the green power LED is not affected. If the selected frequency is included in the VTX table, the LEDs will flash according to the definitions above.

The IRC Tramp setting from Betaflight and the flight controller has higher priority than the physical buttons and the VTX frequency table definition.

If the VTX is connected to the flight controller and the frequency is set to 4999 MHz, the VTX automatically saves 4999 MHz as its current frequency. To return to a frequency in the VTX table when the flight controller is not connected, short-press the channel button once to switch to the default A1 frequency in the VTX table.

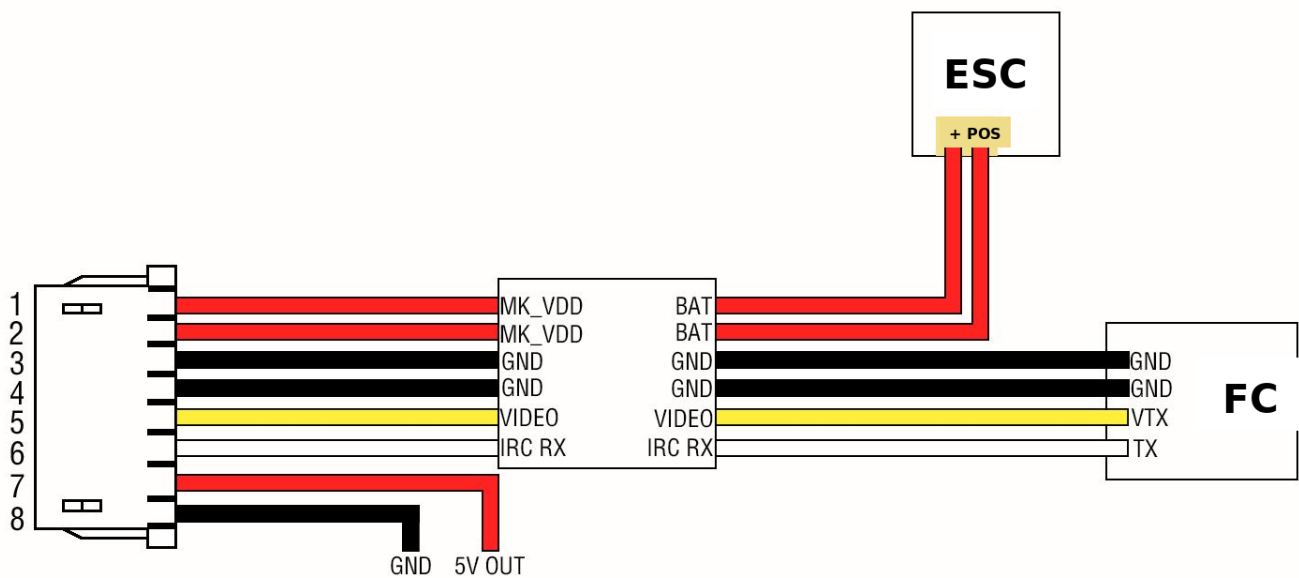
8. 8-Pin 1.0 mm Ribbon-Cable Connector Pinout



Wiring Table:

NO	1	2	3	4	5	6	7	8
FUN	18-36V		GND		Video	IRC	5V Out	GND
Color	Red		Black		Yellow	White	Red	Black

9. Wiring Definition



Wiring reference. Use the original pinout and wiring relationship shown above.

10. Important Usage Notes

1. During installation, leave enough space around the VTX to ensure airflow and heat dissipation. Otherwise, the thermal protection may activate, reducing the output power or even shutting down RF transmission.
2. Before applying power, verify that the input voltage is within the specified range and that the positive and negative polarity are connected correctly. Incorrect wiring may damage components.
3. Before applying power, make sure an antenna has been installed on the RF output connector. This helps protect the RF output stage and extends the service life of the module.
4. Read this manual before use to ensure correct wiring and to extend the service life of the module.

End of manual.