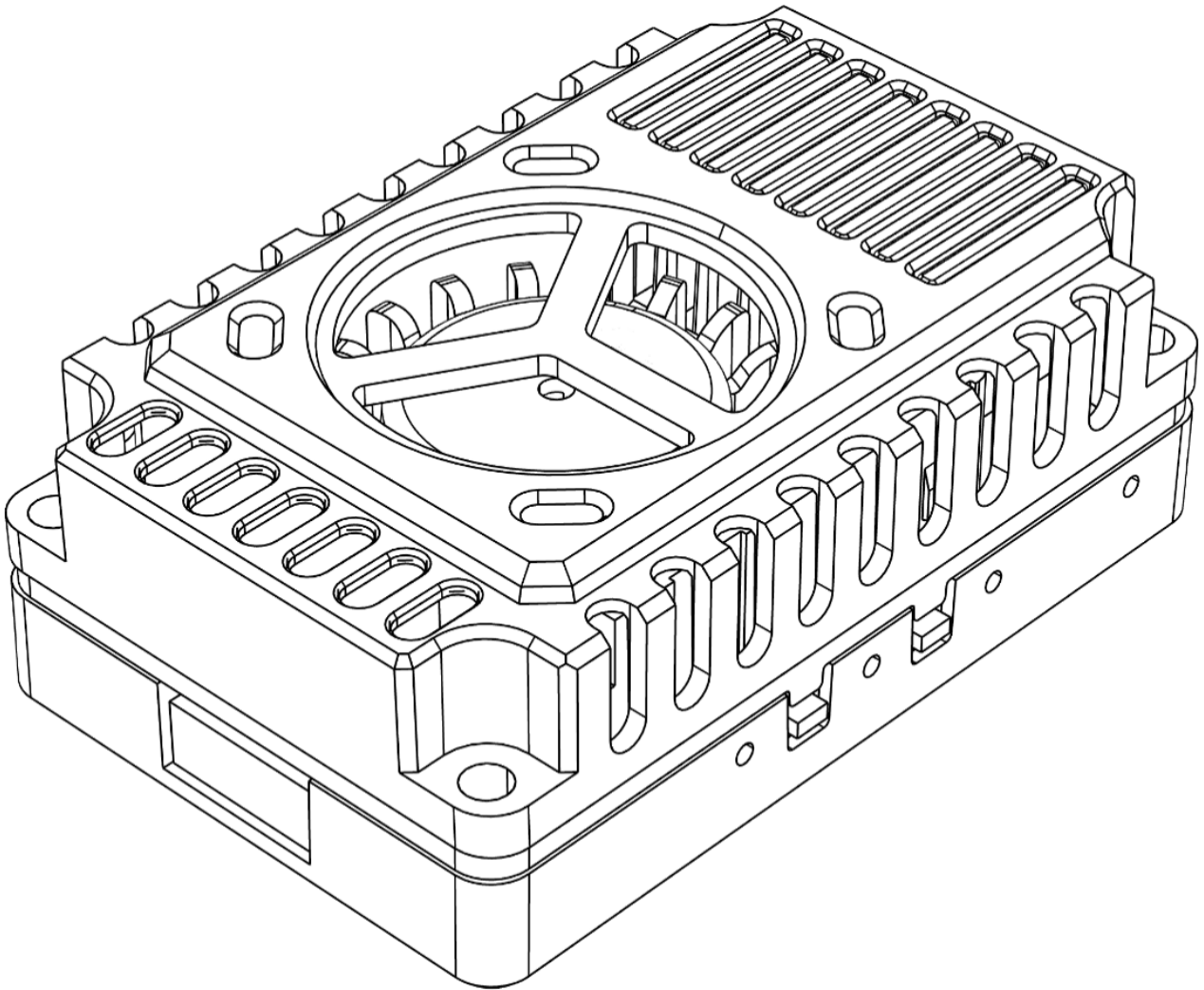


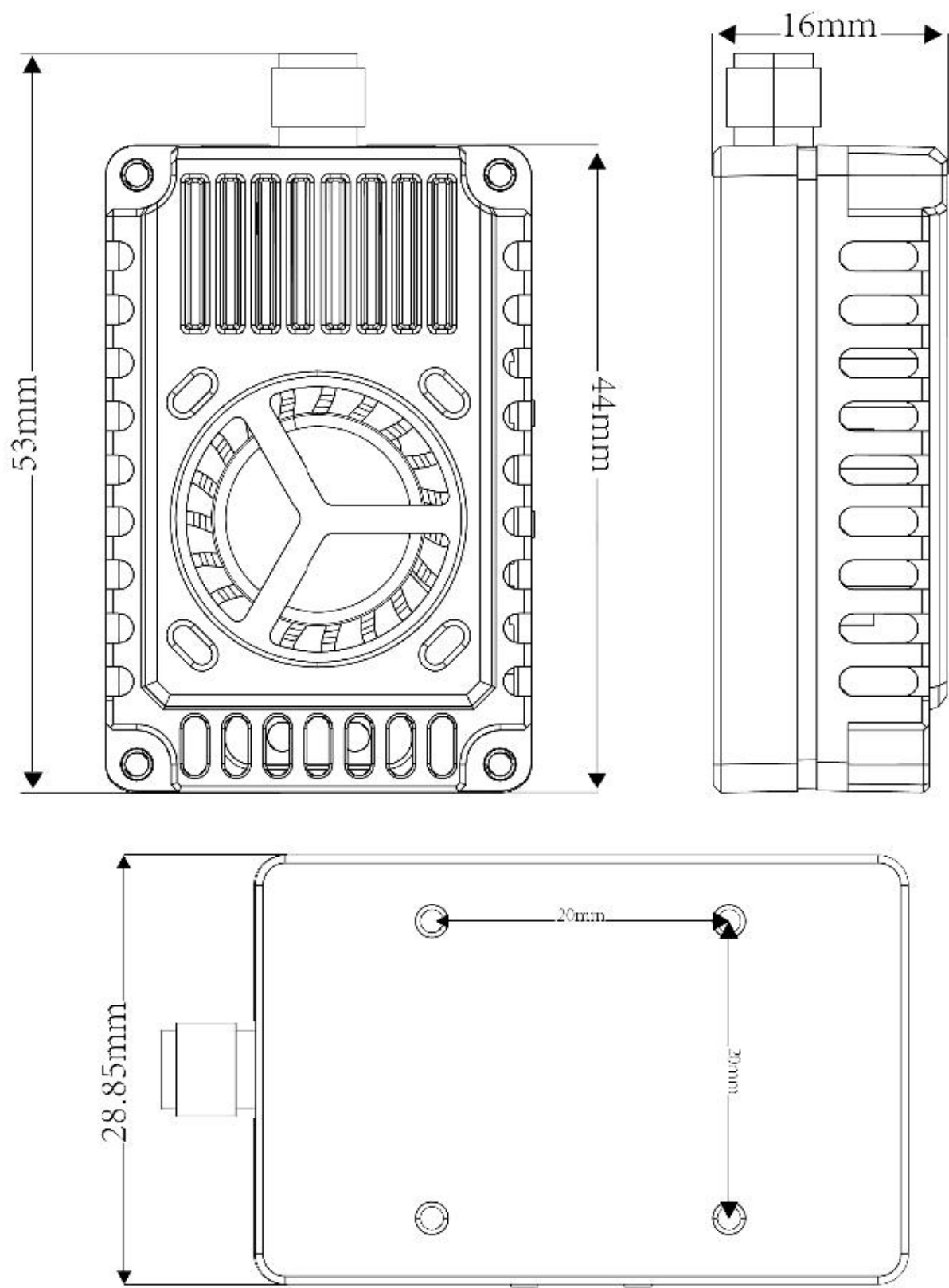
4.9 GHz-7.2 GHz 4 W 176CH VTX Module User Manual

1. Product Appearance



Product appearance reference.

2. Product Dimensions

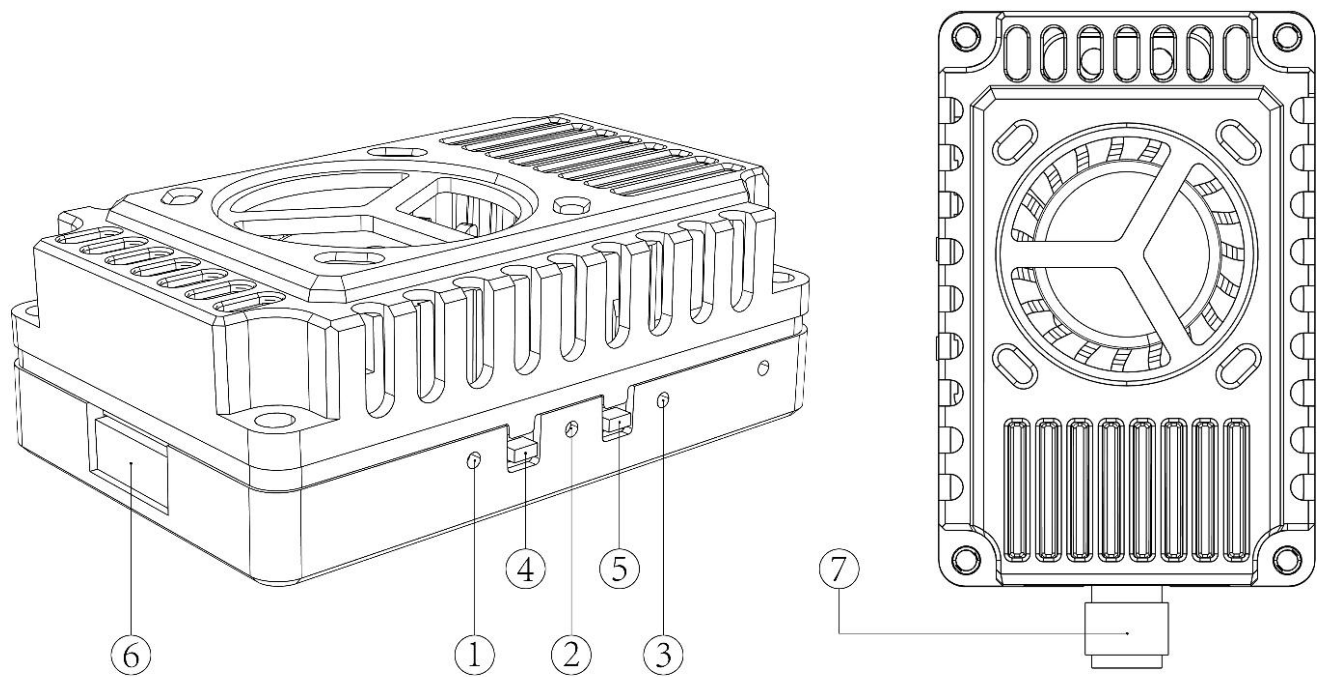


Dimensions and mounting-hole layout. Unit: mm.

3. Specifications

Item	Specification
Frequency range	4867 MHz-7210 MHz
Channel count	176 preset channels (22 bands x 8 channels)
Maximum RF output power	4 W; adjustable levels: 0 mW / 25 mW / 2000 mW / 4000 mW
Input voltage	DC 7-36 V; supports 2S-8S battery input
Antenna connector	SMA female connector (center socket)
Communication protocol	IRC Tramp
Cooling method	Aluminum-alloy heatsink + cooling fan
Mounting pattern	20 mm x 20 mm / $\varnothing$ 2 mm
Product dimensions	53 mm x 28.85 mm x 16 mm
Product weight	26 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 6-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 to Band_V, for a total of 22 bands; the sequence repeats cyclically.

Band	A	B	C	D	E	F	G	H	I	J	K
Blue LED	1 flash	2	3	4	5	6	7	8	9	10	11
Band	L	M	N	O	P	Q	R	S	T	U	V
Blue LED	12	13	14	15	16	17	18	19	20	21	22

Button 5 is used for power adjustment. Short-press Button 5 once to switch to the next output-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	2000 mW	4000 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 automatically decreases by one level. If the temperature remains above 100°C, the output power continues to decrease step by step until it reaches the minimum level of 0 mW. When the temperature drops to 95°C, the output power returns to the originally selected level.

6. Channel Frequency Table

Frequency values are shown in MHz.

Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
Band_A	6110	6130	6150	6170	6190	6210	6230	6250
Band_B	6270	6290	6310	6330	6350	6370	6390	6410
Band_C	6430	6450	6470	6490	6510	6530	6550	6570
Band_D	6590	6610	6630	6650	6670	6690	6710	6730
Band_E	6750	6770	6790	6810	6830	6850	6870	6890
Band_F	6910	6930	6950	6970	6990	7010	7030	7050
Band_G	7070	7090	7110	7130	7150	7170	7190	7210
Band_H	6115	6265	6425	6585	6745	6905	7065	7185
Band_I	5865	5845	5825	5805	5785	5765	5745	5725
Band_J	5733	5752	5771	5790	5809	5828	5847	5866
Band_K	5705	5685	5665	5645	5885	5905	5925	5945
Band_L	5740	5760	5780	5800	5820	5840	5860	5880
Band_M	5658	5695	5732	5769	5806	5843	5880	5917
Band_N	5362	5399	5436	5473	5510	5547	5584	5621
Band_O	4990	5020	5050	5080	5110	5140	5170	5200
Band_P	5333	5373	5413	5453	5493	5533	5573	5613
Band_Q	4867	4884	4921	4958	4995	5032	5069	5099
Band_R	5325	5348	5366	5384	5402	5420	5438	5456
Band_S	5474	5492	5510	5528	5546	5564	5582	5600
Band_T	5653	5693	5733	5773	5813	5853	5893	5933
Band_U	5960	5980	6000	6020	6040	6060	6080	6100
Band_V	6002	6028	6054	6080	6106	6132	6158	6184

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.

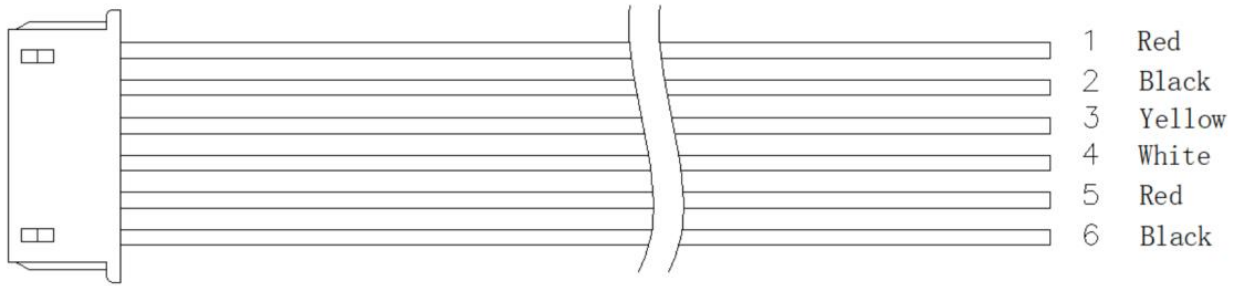
Usage notes:

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 remain solid on, while the green power LED is not affected. If the selected frequency is included in the VTX table, the LEDs 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. 6-Pin 1.0 mm Ribbon-Cable Connector Pinout



Wiring Table:

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

9. 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 electronic components.
3. Before applying power, make sure an antenna for the corresponding frequency is installed on the RF output connector. This prevents damage to electronic components caused by RF power that cannot be properly radiated.
4. Read this manual before use to ensure correct wiring and to extend the service life of the module.

End of manual.