

VTX-F12

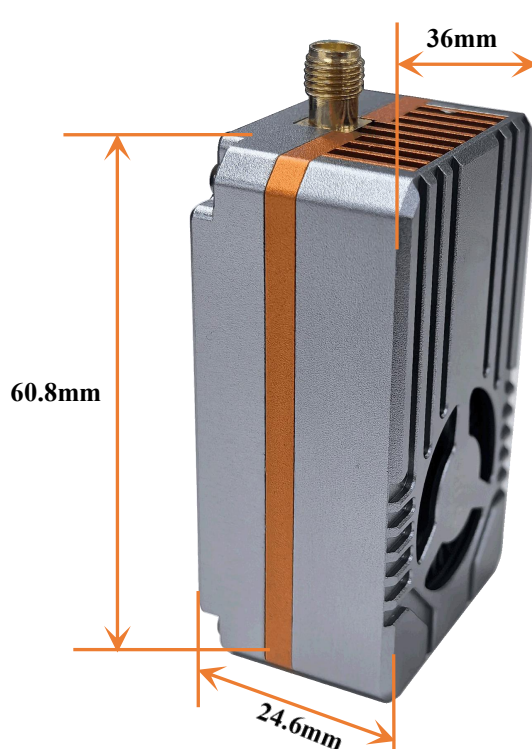
(6.0G~7.2G 64CH 10W FPV Transmitter)

VTX-F12 is an image transmission transmitter with an output power of over 10W, It has the characteristics of small size, light weight, low power consumption, low latency, and strong anti-interference ability, It is equipped with a built-in aluminum heat sink and fan for active heat dissipation to enhance stable power transmission. The transmitter has temperature control protection function to prevent long-term ground parameter adjustment. The transmitter supports IRC protocol OSD parameter adjustment and is widely used in FPV drone flight, outdoor entertainment, racing competitions, and professional aerial photography.



Image

Diagrams



General Characteristics

Item	SPEC.
Supply Voltage	DC IN 9-36V
Frequency band	6110~7210MHz
Channel customer	64CH
Frequency Band	8
Power Level	PIT / 25mW / 200mW / 4W / 10W
Modulation type	FM
Frequency control	PLL
Frequency Stability	±100KHz (Typ.)
Frequency precision	±200KHz (Typ.)
S/N (Fo ± 3MHz)	>70dBc
Antenna Port	50 Ohms (SMA)
Video input level	1V±0.2Vp-p type
Operating Temperature	-10℃~+60℃
Profile dimension	60.8mm (L) * 36mm (W) * 24.6mm(H) (Excluding SMA head)
Weight	Approx.: 73.6g

Channel table

BAND	Channel (Unit: MHz)							
	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A	6110	6130	6150	6170	6190	6210	6230	6250
b	6270	6290	6310	6330	6350	6370	6390	6410
C	6430	6450	6470	6490	6510	6530	6550	6570
d	6590	6610	6630	6650	6670	6690	6710	6730
E	6750	6770	6790	6810	6830	6850	6870	6890
F	6910	6930	6950	6970	6990	7010	7030	7050
H	7070	7090	7110	7130	7150	7170	7190	7210
L	6115	6265	6425	6585	6745	6905	7065	7185

RF Output Characteristic

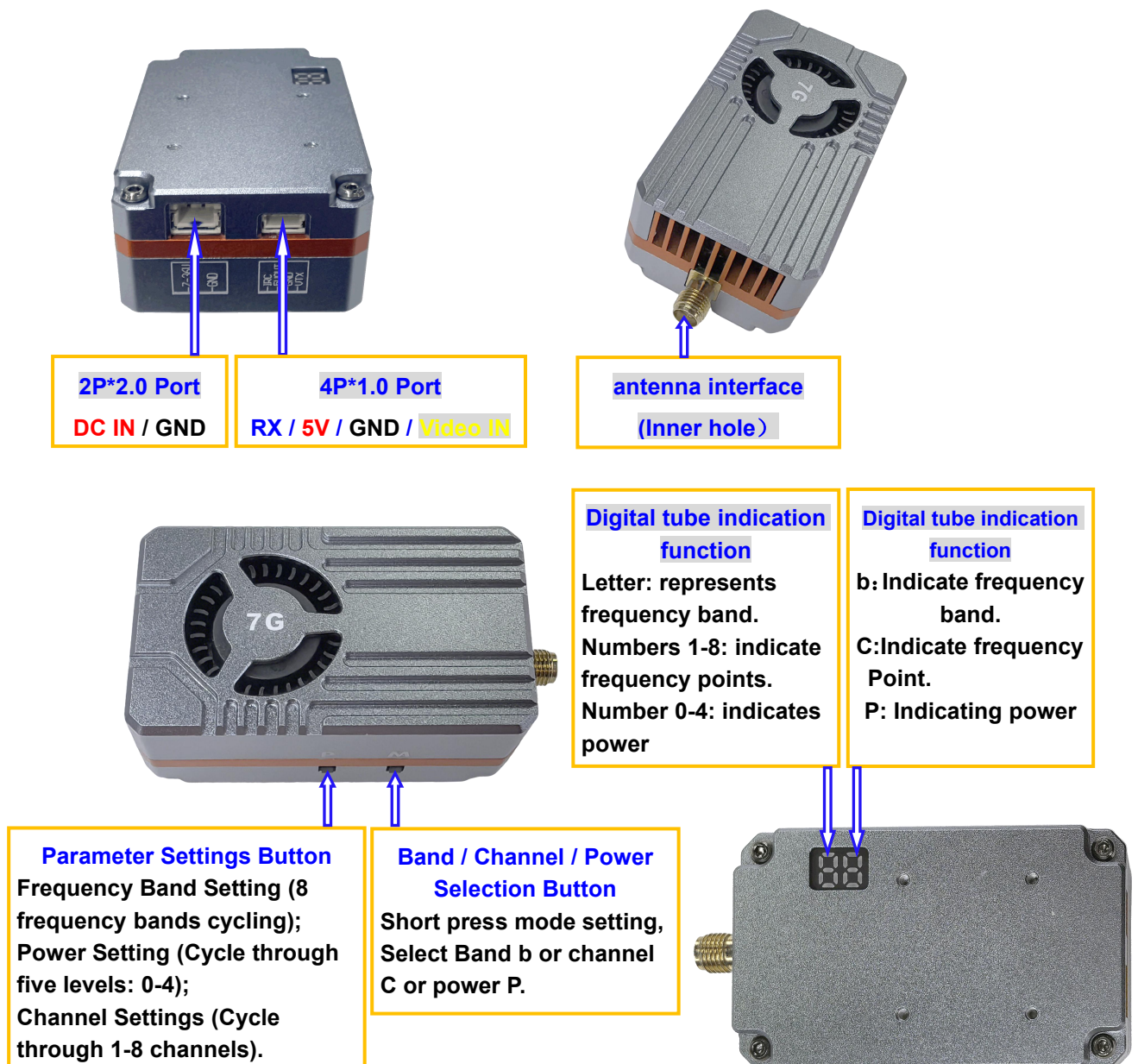
Power Level	0	1	2	3	4
Values	PIT	25mW	200mW	4W	10W

No.	Item	Specifications			Unit	Power Consumption
		Min.	Typ.	Max.		
RF Output Characteristic (25°C with heat dissipation①)						
0	PIT Mode	-60	-50	-40	dBm	12V @ 240 ± 20mA
1	25mW (TX Power)	12	14	17	dBm	12V @ 500 ± 50mA
2	200mW (TX Power)	21	23	25	dBm	12V @ 600 ± 100mA
3	4W (TX Power)	35.5	36	36.5	dBm	12V @ 1100 ± 150mA
4	10W (TX Power)	39.5	40	40.5	dBm	12V @ 2800 ± 200mA

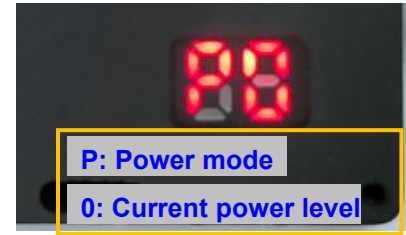
Remark: ① Testing for heat dissipation measures such as heat sinks, fans, or air flow is required.

Attention: The 25mW, 200mW, 4W and 10W power levels must have good contact with the matching antenna. And the antenna port must be correctly and well connected to match the antenna. Otherwise, if the power cannot be transmitted, it will burn out the amplifier.

Pin Assignment



Example Explanation of Digital Tube Display:

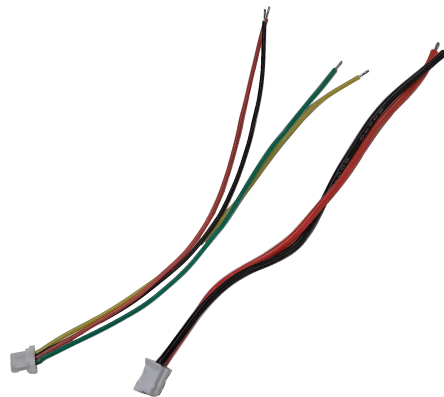


Pin port	Function Description
DC IN	Input voltage (9-36V)
GND	Ground
RX	Remote control signal input port, Support IRC protocol to SET channel and power.
5V	Output voltage DC 5V
Video IN	CVBS video signal input (TYP. 1Vp-p @ 75Ohms)
Antenna Port	Antenna Port (SMA male head inner hole) (6.0~7.2G Antenna)
seven-segment display	The first digit of the digital display shows the content, where b represents the frequency band, C represents the frequency point, and P represents the power; When the second digit of the digital tube is displayed as a letter, it represents the corresponding frequency band. When the number is displayed as 1-8, it represents the corresponding frequency point When shown as 0-4, it represents the corresponding power gear;
Band / Channel / power selection button	Short press the function selection to cycle between frequency group b, channel C, and power P
Parameter setting button	Short press parameter settings: Frequency band setting (8 frequency band cycle switching); Power setting (0-4 five gear cycle switching); Channel settings (1-8 eight channel cycle switching).

Accessory



Antenna 1PC



4P*1.0 / 2P*2.0 Connecting cable with plug 2PCS