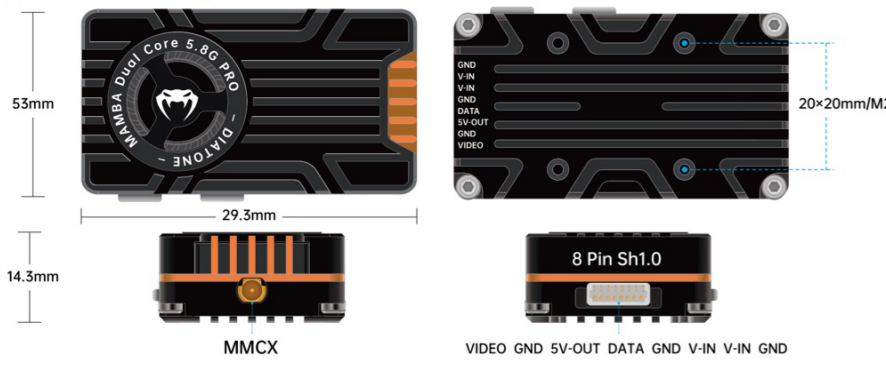
MAMBA 5.8G Pro Video Transmitter(80CH)

Wiring Diagram



Port	Difinition	Wiring
V-IN	7-36V DC Input	Connect to the 7-36V output
5V-OUT	5V/1A(Max) Power output	5V power supply for other devices
GND	Ground wire	Connect to the power ground wire

Port	Difinition	Wiring
DATA	VTX IRC Signal in	Connect to the UART TX port of FC. Switch on the IRC protocol to concrol the Channel, Band, and Power of the VTX via OSD
VIDEO	Video in	Connect to the Video Output of FC

Basic Setting

Connect Tiny Ultra to the UART TX port of FC.
Switch on the IRC protocol to control the Channel, Band, and Power of the VTX via OSD

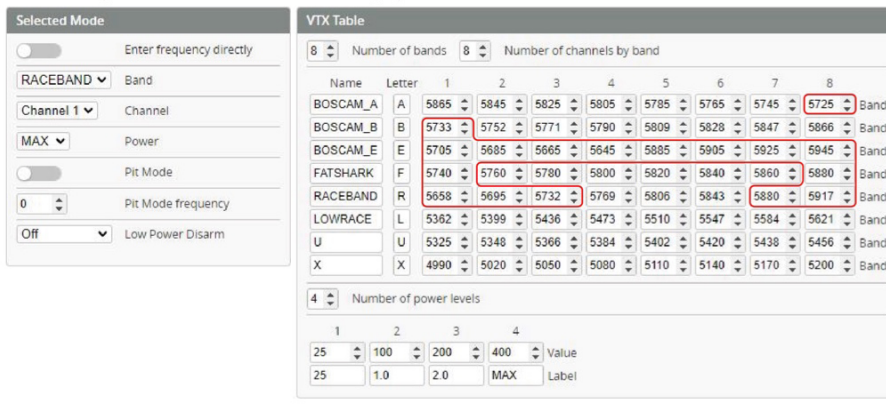
Follow the steps to set the VTX control (For Betaflight)

1.Connect the FC and VTX accroding to the diagram. Switch on the "OSD" function

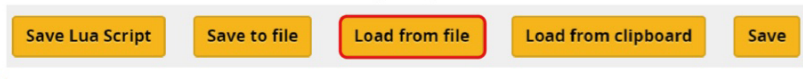
⚠ **The antenna must be proper installed (Power on the VTX without the antenna may cause damage to the VTX)**

2. Switch the correspondingly UART **"Peripherals"** → **"VTX(IRC)"** function.

3. Make settings as follow in "Video Transmitter" page



Or download **"MAMBA 5.8G Pro Dual Core(80CH).json",** click **"Load from file"** and choose the file to load.



⚠ **Caution:**

- Channels marked red require a HAM certificate. Please fill in "0".
  or load **" MAMBA 5.8G Pro Dual Core(80CH).json"** if you are not authorized.
- Some frequencies and transmitting power may violate local laws in some countries or regions.
  Please use them according to the actual situation.

4.Reboot the FC when complete setting.

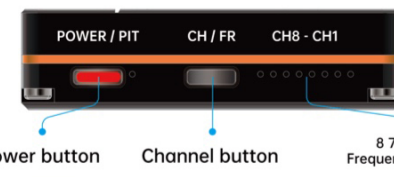
Channel/Power Adjustment

1. Make sure the VTX has been connected to FC and set correctly.
2. Power on the VTX and FC, turn on video receiver and transmitter.
3. Search for the current VTX channel by video receiver.
4. Move the stick as follow: THROTTLE MID+YAW LEFT+PITCH UP to enter OSD menu.
5. Switching PITCH up/down to choose menu option. Move the cursor to " FEATURES"and stir Roll stick right to enter "VTX" menu.
6. Move the cursor to "SET", ROLL stick right to enter "SET" and choose "YES"to save the settings. The VTX will switch to the chosen channel.
7. Adjust the VTX receiver to current channel.
8. Save & Exit the OSD menu.

⚠ Please disable irc trump in betaflight Configuration enable onboard control button.

- **Default settings:**

The frequency is 5740 25mW, and using all frequencies and higher power may pose legal risks.
Please comply with the laws and regulations of your country, and our company is not responsible for this.



[Power button Light display]: 25mW Green | 1000mW Yellow | 2000mW Red | MAX Purple

- **Power switching:**

[Power button]: Short press to switch power
This diagram has four levels of transmission power: **25/1000mW/2000mW/MAX,**
Please set according to the actual environment and laws and regulation

- **PIT Mode:**

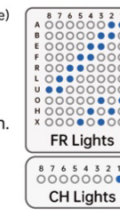
The output power of VTX in PIT mode is only 3mW, Perform VTX tuning/setup according to requirements.

[Start method]:
1. Long press [Power button] for 2S to turn PIT on/off, and [Power button] slowly flashes green.
2. Enable the "PIT" function in the OSD menu.

- **Display method description:** (right image)

[Frequency group display] :
When switching frequency group mode, the CH1-CH8 light group displays the corresponding frequency group in combination.

[Frequency display]:
Display the corresponding frequency points in sequence in the CH1-CH8 lamp group.



- **VTX frequency switching:**

[Channel button]:
Short press to switch frequency, long press for 2 seconds to enter frequency group switching mode, Short press again to switch frequency groups, let it sit for 5 seconds and automatically save and exit.

Frequency Table

Frequency Table(MHz)

FR(C1) \ CH	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A ○○○○○○●●	5865	5845	5825	5805	5785	5765	5745	5725
B ○○○○○●●○	5733	5752	5771	5790	5809	5828	5847	5866
E ○○○○●●○○	5705	5685	5665	5645	5885	5905	5925	5945
F ○○○●●○○○	5740	5760	5780	5800	5820	5840	5860	5880
R ○○●●○○○○	5658	5695	5732	5769	5806	5843	5880	5917
L ○●●○○○○○	5362	5399	5436	5473	5510	5547	5584	5621
U ●●○○○○○○	5325	5348	5366	5384	5402	5420	5438	5456
O ○○○○○●○●	5474	5492	5510	5528	5546	5564	5582	5600
H ○○○○●○●○	5653	5693	5733	5773	5813	5853	5893	5933
X ○○○●○●○○	4990	5020	5050	5080	5110	5140	5170	5200

○ ON/OFF ● Blue Light ON/OFF

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Specifications

●Model :	MAMBA 5.8G Pro Video Transmitter		
●Working Voltage:	7-36V DC		
●Working Current:	≤680mA (12V/1000mW)	●Video Format:	NTSC / PAL
	≤1550mA (12V/MAX)	●Protocol:	IRC
●Working Temp:	-10~60 ℃	●Number of Channels:	80CH (A-B-E-F-R-L-O-U-H-X)
●RF impedance:	50Ω	●Output Power:	PIT/25mW/1000mW/2000mW/MAX
●Video Input Impedance:	75Ω	●Size:	53×29.4×14.4mm
●Antenna Connector:	MMCX	●Mounting hole:	20×20mm/M2
●Input video amplitude:	CVBS 0.8~1.2VP-P	●Weight:	30g