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> [JHEMCU VTX30-800 5.8G Video Transmitter Instruction Manual](#)

JHEMCU VTX30-800

JHEMCU VTX30-800 5.8G Video Transmitter Instruction Manual

Brand: JHEMCU

Model: VTX30-800

PRODUCT OVERVIEW

The JHEMCU VTX30-800 is a high-performance 5.8GHz video transmitter designed for RC FPV racing and freestyle drones. It features adjustable power output from 25mW to 800mW, 40 channels, and supports a wide input voltage range of 7-26V (2-6S LiPo). Its compact 30.5x30.5mm mounting hole pattern makes it suitable for various drone builds.

Key Features:

- Adjustable Power Output: PIT/25mW/100mW/200mW/400mW/800mW
- 40 Frequency Channels
- Wide Input Voltage: 7-26V (2-6S LiPo)
- Compact Size: 36mm x 36mm with 30.5mm x 30.5mm mounting holes
- Lightweight: Approximately 6.8 grams

WHAT'S IN THE BOX

The following components are included with your JHEMCU VTX30-800 video transmitter:

- 1 x VTX30-800 Video Transmitter Module
- 1 x MMCX-SMAJI Cable (Antenna Pigtail)
- 1 x 6P*1.0MM Plug Cord (Wiring Harness)

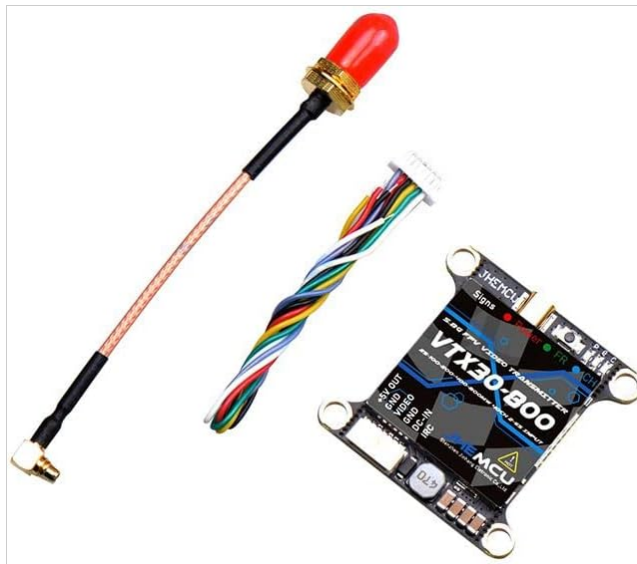


Image: Contents of the VTX30-800 package, showing the video transmitter module, antenna pigtail, and wiring harness.

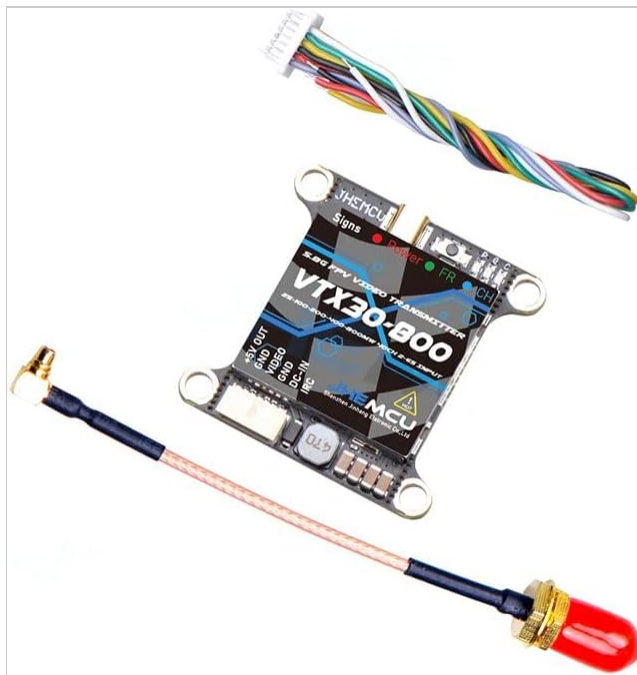


Image: Another view of the VTX30-800 package contents, highlighting the included accessories.

TECHNICAL SPECIFICATIONS

Feature	Specification
Model	VTX30-800 5.8G VTX
Frequency	5.8GHz
Channels	40CH
Power Output	PIT/25mW/100mW/200mW/400mW/800mW (Adjustable)
Input Voltage	7-26V (2-6S LiPo)
Mounting Hole Distance	30.5mm x 30.5mm (M3)

Dimensions	36mm x 36mm
Weight	6.8 grams



Image: The VTX30-800 module being weighed on a digital scale, indicating a weight of 6.8 grams.

SETUP AND INSTALLATION

Proper installation is crucial for the optimal performance and longevity of your VTX30-800. Follow these steps carefully:

Physical Mounting:

The VTX30-800 features a 30.5mm x 30.5mm mounting pattern, compatible with most standard flight controller stacks. Use M3 screws for secure mounting.

Wiring Connections:

Refer to the pinout diagram on the VTX module and the provided wiring harness for correct connections. The module has clearly labeled pads for power, ground, video input, and control signals.

- **+5V OUT:** 5V output for powering a camera (if applicable).
- **GND:** Ground connection.
- **VIDEO:** Video signal input from your FPV camera.
- **DC-IN:** Main power input (7-26V, 2-6S LiPo).
- **IRC:** IRC Tramp protocol signal for flight controller control (SmartAudio compatible).

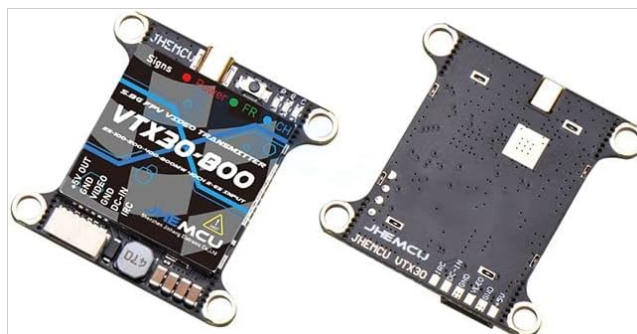


Image: Front and back views of the VTX30-800 module, illustrating the connection pads and overall dimensions.

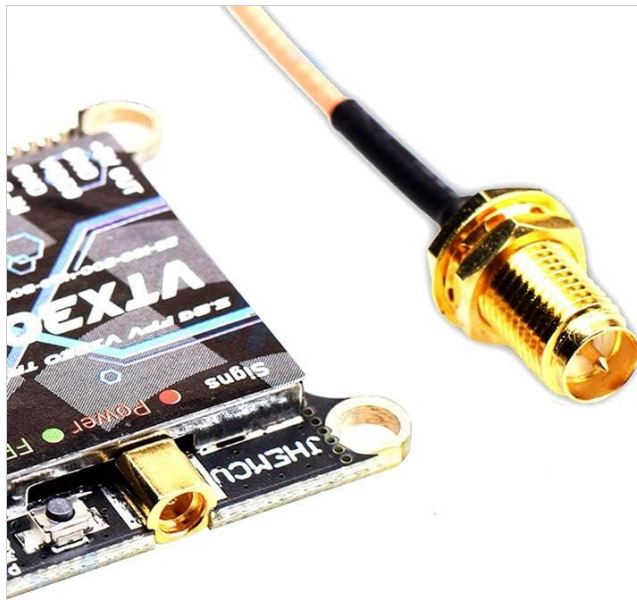


Image: Detailed close-up of the VTX30-800 module's connection pads, showing labels for +5V OUT, GND, VIDEO, DC-IN, and IRC.

Antenna Connection:

Connect the provided MMCX-SMAJI cable to the MMCX connector on the VTX module. Ensure a secure connection. Then, attach your 5.8GHz FPV antenna to the SMA end of the cable. Always ensure an antenna is connected before powering on the VTX to prevent damage.

OPERATING INSTRUCTIONS

The VTX30-800 can be configured via button presses on the module or through your flight controller using the IRC Tramp protocol (SmartAudio).

Button Control:

The VTX module has a single button for changing settings. The LEDs indicate the current power level, band, and channel.

- **Short Press:** Cycles through channels (CH1-CH8).
- **Long Press (2 seconds):** Cycles through bands (A, B, E, F, R).
- **Very Long Press (5 seconds):** Cycles through power levels (PIT/25mW/100mW/200mW/400mW/800mW).

Warning: Always ensure an antenna is connected before powering on the VTX. Operating without an antenna can permanently damage the transmitter.

Flight Controller (Betaflight) Configuration:

For advanced control, connect the VTX's IRC pin to a UART TX pad on your flight controller. In Betaflight Configurator, navigate to the "Ports" tab and enable "VTX (IRC Tramp)" on the corresponding UART. Then, go to the "Video Transmitter" tab to configure bands, channels, and power levels.

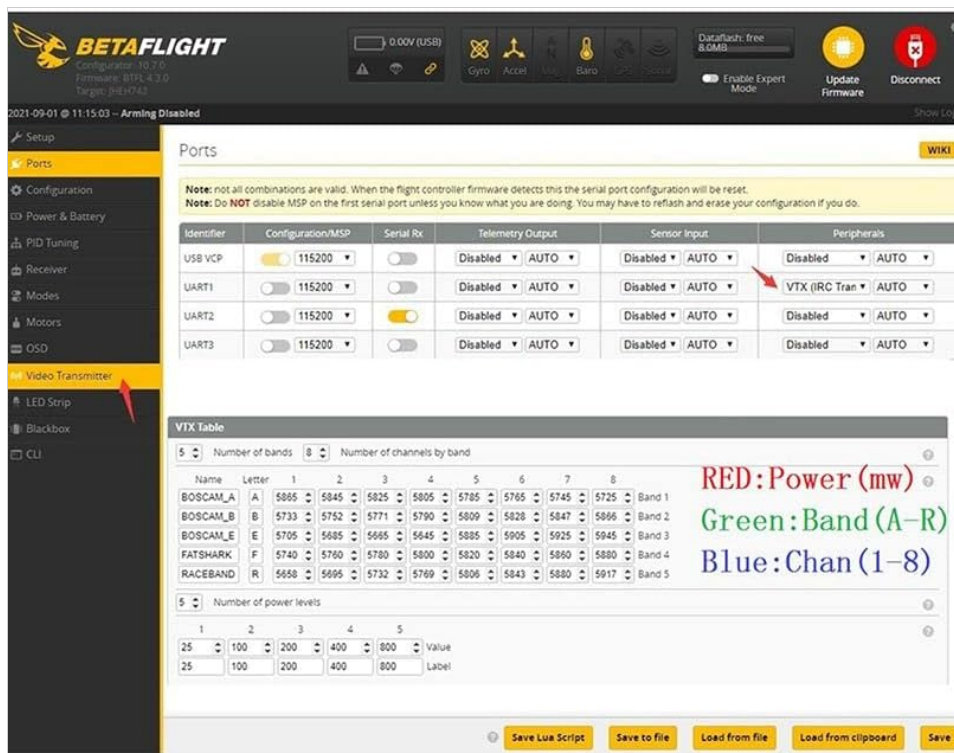


Image: Screenshot of Betaflight Configurator's "Video Transmitter" tab, displaying the VTX table for setting bands, channels, and power levels. The table shows various frequency bands (BOSCAM_A, BOSCAM_B, BOSCAM_E, FATSHARK, RACEBAND) and their corresponding frequencies, along with power levels (25, 100, 200, 400, 800 mW).

PitMode:

PitMode allows the VTX to transmit at a very low power (PIT) to avoid interfering with other pilots during setup or before a race. When in PitMode, the VTX transmits only a very short range signal. This mode is typically activated via the flight controller OSD or a button combination.

MAINTENANCE

To ensure the longevity and reliable performance of your VTX30-800, consider the following maintenance tips:

- **Keep Clean:** Regularly inspect the module for dirt, dust, or debris. Use a soft, dry brush or compressed air to clean it. Avoid using liquids.
- **Protect from Impact:** Mount the VTX in a location that minimizes exposure to crashes and impacts.
- **Heat Management:** Ensure adequate airflow around the VTX, especially when operating at higher power levels, to prevent overheating.
- **Antenna Care:** Always ensure the antenna is securely connected before powering on. A loose or disconnected antenna can cause permanent damage to the VTX.
- **Wiring Integrity:** Periodically check all wiring connections for signs of wear, fraying, or corrosion.

TROUBLESHOOTING

If you encounter issues with your VTX30-800, refer to the following common problems and solutions:

No Video Signal:

- **Check Power:** Ensure the VTX is receiving the correct input voltage (7-26V).
- **Antenna Connection:** Verify the antenna is securely attached to the VTX.

- **Camera Connection:** Confirm the FPV camera is properly connected to the VTX's VIDEO and GND pads.
- **Channel/Band Mismatch:** Ensure your FPV goggles/receiver are set to the exact same band and channel as the VTX.
- **PitMode:** Check if the VTX is accidentally in PitMode, which transmits at very low power.

Poor Video Quality / Static:

- **Antenna Quality/Type:** Ensure you are using a good quality 5.8GHz FPV antenna.
- **Interference:** Move away from sources of electromagnetic interference (e.g., Wi-Fi routers, other FPV systems).
- **Power Level:** Increase the VTX power output if operating at a low setting and experiencing range issues.
- **Obstructions:** Physical obstructions between the drone and receiver can degrade signal quality.
- **Damaged Components:** Inspect the VTX, antenna, and cables for any visible damage.

VTX Overheating:

- **Airflow:** Ensure the VTX has sufficient airflow, especially when mounted in a tight space or operating at high power.
- **Antenna:** Confirm an antenna is always connected when powered on.
- **Input Voltage:** Verify the input voltage is within the specified range (7-26V).

WARRANTY AND SUPPORT

This product is manufactured by JHEMCU. For any warranty claims, technical support, or inquiries regarding the VTX30-800, please contact your original point of purchase or the official JHEMCU support channels.

Please retain your proof of purchase for warranty purposes. Damage caused by improper installation, misuse, or unauthorized modification is not covered under warranty.