HGLRC 20201107

HGLRC Zeus350mW VTX Instruction Manual

Model: 20201107
Brand: HGLRC

1. Introduction

The HGLRC Zeus350mW VTX is a compact and powerful 5.8GHz FPV video transmitter designed for racing drones and quadcopters. It features switchable power output (PIT/25/100/200/350mW) and a built-in microphone for real-time audio transmission. Its unique boomerang shape and multiple mounting options (16x16, 20x20, 25.5x25.5) make it versatile for various builds.



Front view of the HGLRC Zeus350mW VTX, showcasing the HGLRC Zeus logo and 5.8GHz VTX Nano branding.

2. What's in the Box

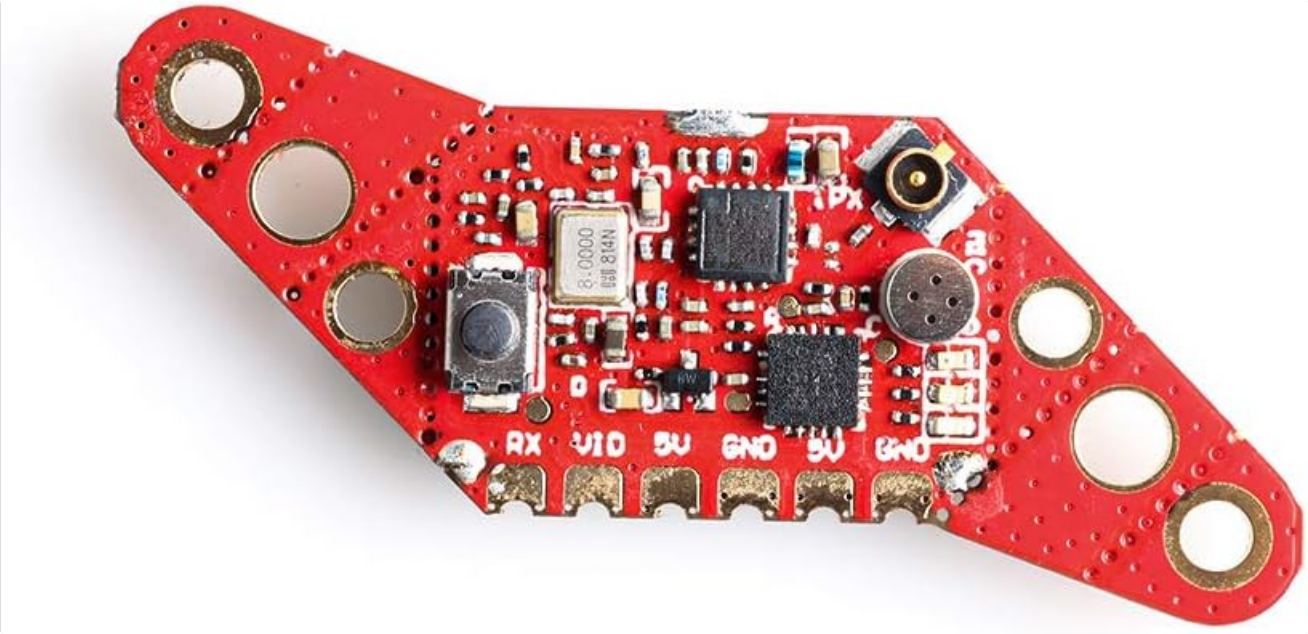
The package includes the following components:

- 1 x Zeus nano VTX
- 1 x ipex Linear Brass Antenna

- 1 x ipex to SMA Adapter Cable
- 1 x VTX Cable

3. Setup

3.1. Physical Overview



Back view of the HGLRC Zeus350mW VTX, showing the solder pads, function button, and IPEX antenna connector.



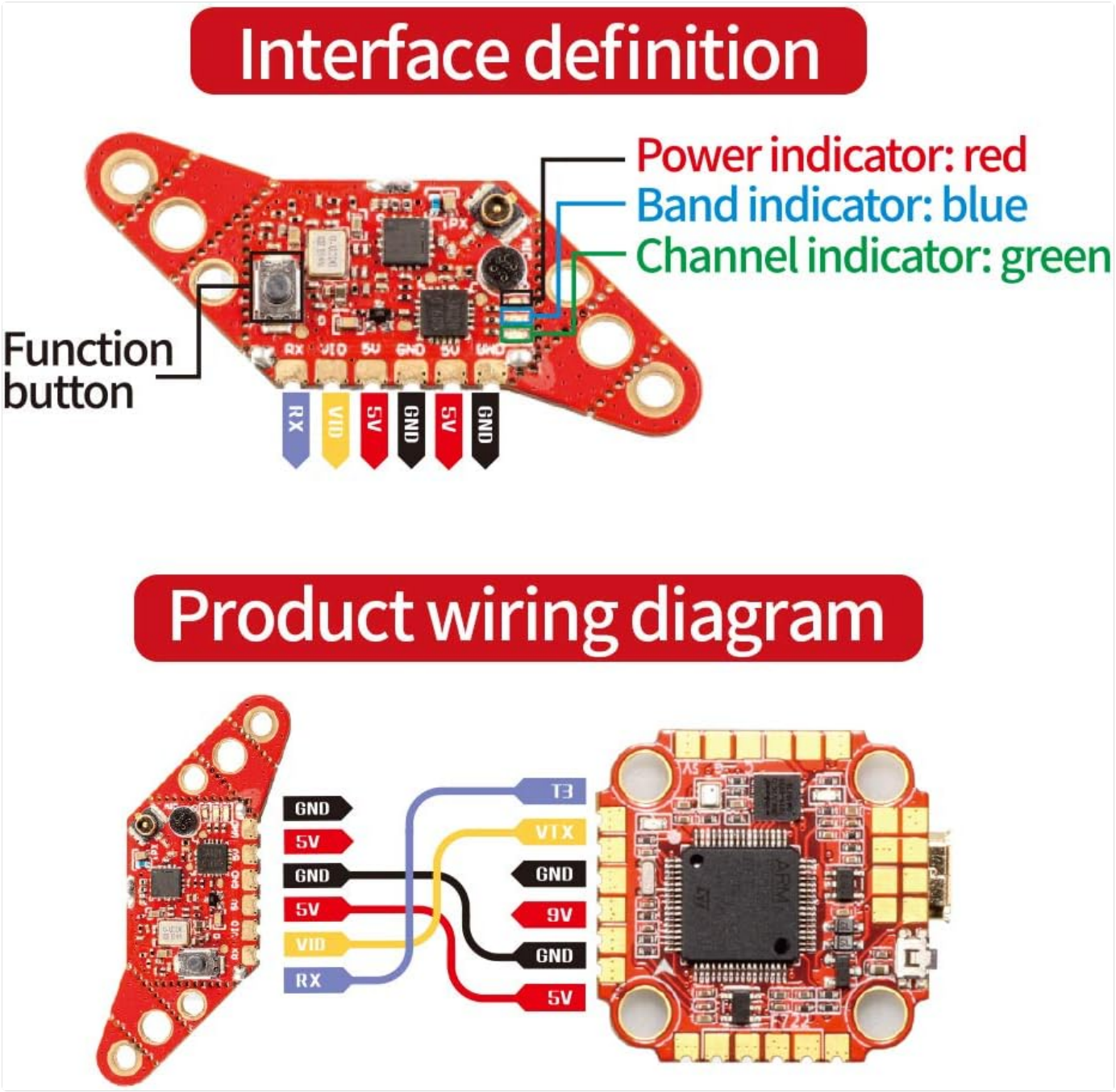
The Zeus350mW VTX demonstrating its ultra-small size, fitting on a fingertip to reduce installation space.



Illustration of the VTX installed, highlighting its compatibility with 16mm, 20mm, and 25.5mm mounting holes.

3.2. Interface Definition and Wiring Diagram

Understand the pinout and connect the VTX to your flight controller according to the diagram below.



Detailed diagram showing the interface definition (Power, Band, Channel indicators, Function button) and the product wiring diagram connecting the VTX to a flight controller.

Interface Definitions:

- **Power indicator:** Red LED
- **Band indicator:** Blue LED
- **Channel indicator:** Green LED
- **Function button:** Used for changing settings.

Wiring Connections:

- **GND:** Ground connection.
- **5V:** 5V power input.
- **VID:** Video signal output.
- **RX:** Receiver input (for Betaflight control).

4. Operating Instructions

4.1. Frequency Sheet

The Zeus350mW VTX operates on 5.8GHz and supports multiple bands and channels. Refer to the frequency sheet below for available frequencies.



Band (Blue light)	CH(Green light)							
	1	2	3	4	5	6	7	8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5825	5847	5866
E	5705	5685	5665	5665	5885	5905	5905	5905
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917



indicator light: red	Always light	1 Flash stop	2 Flash stop	3 Flash stop	4 Flash stop
Power indicator	PIT	25mw	100mw	200mw	350mw

Table detailing the frequency bands (A, B, E, F, R) and their corresponding channels (1-8) with specific frequencies in MHz. Blue light indicates Band, Green light indicates Channel.

4.2. Power Indicator Status

The red power indicator light provides information about the current power output of the VTX.

Frequency sheet

Band (Blue light)	CH(Green light)							
	1	2	3	4	5	6	7	8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5825	5847	5866
E	5705	5685	5665	5665	5885	5905	5905	5905
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917

Power indicator status

indicator light: red	Always light	1 Flash stop	2 Flash stop	3 Flash stop	4 Flash stop
Power indicator	PIT	25mw	100mw	200mw	350mw

Table showing the power indicator light status (red LED) and its corresponding power output (PIT, 25mW, 100mW, 200mW, 350mW).

- **Always light:** PIT Mode
- **1 Flash stop:** 25mW
- **2 Flash stop:** 100mW
- **3 Flash stop:** 200mW
- **4 Flash stop:** 350mW

4.3. Changing Settings

Settings such as band, channel, and power output can be changed via the function button or through Betaflight Flight Control Board.

- **Function Button:** Short press to cycle through channels. Long press to cycle through bands.
- **Betaflight:** Connect the VTX to your flight controller and use the Betaflight OSD or CLI commands to configure VTX settings. This allows for precise control over power and frequency.

4.4. Built-in Microphone



A close-up view of the integrated microphone on the VTX, enabling real-time audio transmission.

The built-in microphone allows for audio transmission alongside video, providing an immersive FPV experience and aiding in locating the drone by sound.

5. Maintenance

- Keep the VTX clean and free from dust and debris.
- Ensure proper ventilation to prevent overheating, especially at higher power outputs.
- Regularly inspect solder joints and connections for integrity.
- Avoid exposing the VTX to excessive moisture or extreme temperatures.

6. Troubleshooting

- **No Video Signal:**
  - Check all wiring connections, especially video signal (VID) and ground (GND).
  - Ensure the VTX is powered correctly (5V).
  - Verify that your FPV receiver is on the correct band and channel.
  - Check antenna connection.
- **Poor Video Quality/Static:**
  - Ensure the antenna is securely connected and undamaged.
  - Check for interference from other electronic components.
  - Increase VTX power output if operating at a low setting (e.g., 25mW).
  - Verify that the VTX and receiver frequencies are perfectly matched.
- **VTX Overheating:**
  - Ensure adequate airflow around the VTX.
  - Avoid prolonged operation in PIT mode or at maximum power without proper cooling.
  - Check for short circuits in wiring.
- **Cannot Change Settings:**
  - Ensure the function button is working correctly.
  - Verify Betaflight configuration if attempting to change settings via software.
  - Check RX connection for Betaflight control.

7. Specifications

Feature	Detail
Brand	HGLRC
Model Name	Zeus350mW VTX
Connectivity Technology	5.8 GHz
Power Output	PIT/25/100/200/350mW Switchable
Built-in Microphone	Yes
Mounting Holes	16x16, 20x20, 25.5x25.5 (M2/M3)
Dimensions (L x W x H)	0.73"L x 0.54"W x 0.24"H
Item Weight	0.317 ounces
Manufacturer Part Number	20201107
First Available Date	March 15, 2020

8. Warranty and Support

For warranty information and technical support, please contact HGLRC directly through their official channels or visit their website. Refer to your purchase documentation for specific warranty terms and conditions.
HGLRC provides good wiring diagrams online and is available to assist with questions within 24 hours.

Ask a question about this manual

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. Privacy details.

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question