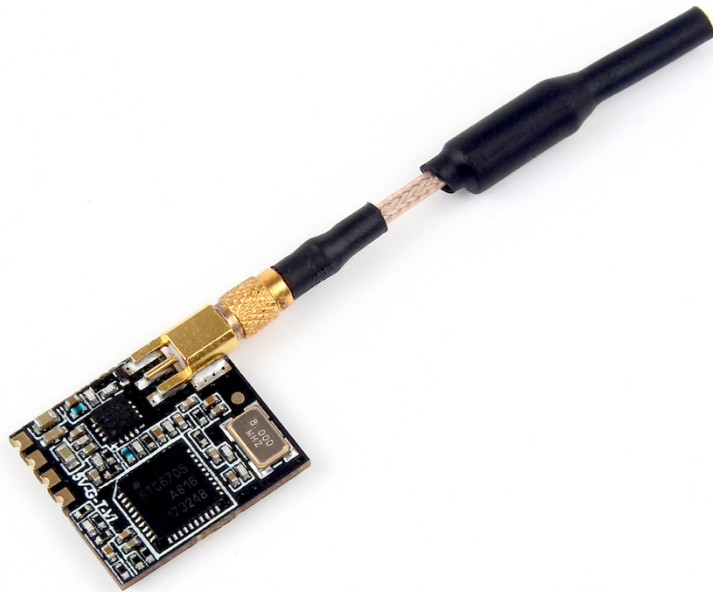


*Atlatl Mini FPV  
Video Transmitter  
V1.0*



User Manual & Installation Guide

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# Overview

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## *Features*

- Compatible with all major FPV receivers from vendors such as Fatshark, ImmersionRC, etc.
- Supports the standard 40-channel set: band A, B, E, Fatshark, and Raceband.
- TBS Telemetry Protocol input allows remote control by the flight controller. Change channel, transmit power, and more from Betaflight OSD, flight controller USB port, Taranis Lua Script, and more.
- MMCX connector is durable and easy to use. Rated for 100's of mating cycles. Easy and quick antenna changes. No more ripped-off UFL connectors.
- Variable transmit power 25 mW or 100 mW.
- 0.5 mW True Pit Mode allows you to power up safely without the risk of knocking other pilots out of the air.
- Tiny form factor for easy installation in tight racing builds.

## *Specifications*

- Output Power: 0.5 mW (pit mode), 25 mW, 100 mW
- Antenna Connector: MMCX
- Input Voltage: 4.5 to 5.5 volts (nominal 5v power)
- Dimensions: 19x16x4.5mm
- Weight: 1.6g (without antenna)

## *Warranty and Return Policy*

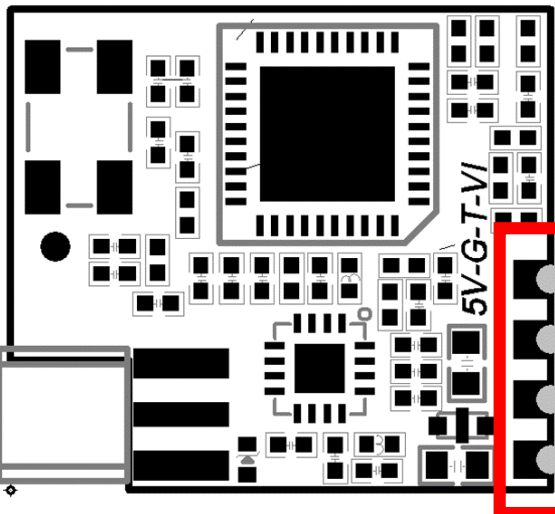
If you believe that your Atlatl is defective, please contact us. If we determine that the product is defective, it will be repaired or replaced at no charge to you. We may ask you to send your Atlatl to our service center for examination or repair. Shipping costs are your responsibility. Returned items should include the original packaging and all accessories.

If product is damaged or defective, we will repair or replace it. Refunds are only given when product is lost by the shipping company. The refund amount is limited to the price of the product. Shipping costs are never refundable.

Contact us at:

- Email: [productservice@holybro.com](mailto:productservice@holybro.com)
- Facebook Page: Holybro

# Pinout Diagram and Channel Table



Pin	Function
VI	Video In (from camera)
T	SmartAudio Input
G	Ground
5v	Input Voltage (4.5 to 5.5 volts)

		1	2	3	4	5	6	7	8
<b>A</b>	Band A	5865	5845	5825	5805	5785	5765	5745	5725
<b>B</b>	Band B	5733	5752	5771	5790	5809	5828	5847	5866
<b>E</b>	Band E	5705	5685	5665	<del>5645</del>	5885	5905	<del>5925</del>	<del>5945</del>
<b>F</b>	IRC/FS	5740	5760	5780	5800	5820	5840	5860	5880
<b>C</b>	RaceBand	5658	5695	5732	5769	5806	5843	5880	5917

# Installation Guide

The Atlatl Mini is small enough to install almost anywhere on your quad that you find convenient. Typically it would be mounted using double-sided tape, and possibly a zip tie to hold it securely.

Although the Atlatl’s MMCX connector is quite durable, we strongly recommend securing the antenna to the frame so that the Atlatl won’t be damaged if the antenna is tugged on in a crash. There are various ways to do this, including 3D printed parts, or even just zip-tying the pigtail to a standoff.

Wiring up the Atlatl is not complicated.

1. Solder the red wire from the 5v pad to the voltage source for the Atlatl. The Atlatl requires 4.5v to 5.5v voltage (nominal 5v). You must run the Atlatl from a 5v power supply such as the voltage regulator of your flight controller or ESC. If you connect the Atlatl to a higher voltage supply, it will be damaged or destroyed.
2. Solder the black wire from the G pad to a ground pad on the flight controller. Video noise will be minimized if you solder your Atlatl ground wire and your FPV camera’s ground wire to the same pad. Twist them together and tin them before soldering them both to the same pad.
3. Connect the yellow wire from the VI pad to the video signal wire of your FPV camera. The camera’s video wire will usually be yellow as well. You can directly solder the two wires together, or you might have a PDB or FC with a “Video In” and “Video Out” pad. In that case, solder the camera’s video wire to “Video In” and the Atlatl’s video wire to “Video Out”.
4. The Atlatl can be remote-controlled using TBS SmartAudio protocol. This is the recommended use of the Atlatl. To use this feature, solder the blue wire to from the T pad of the Atlatl to the TX pad of the UART on your flight controller that will be used for this feature. See your FC’s documentation for help deciding which UART to use.
5. In Betaflight or Cleanflight, go to the Ports tab. Enable TBS SmartAudio protocol on the UART that you are using to remote-control the Atlatl (the UART whose TX pad you soldered the blue wire to). Do not enable any other function on this UART. Each UART must have only one function active at a time.

## Ports

[WIKI](#)

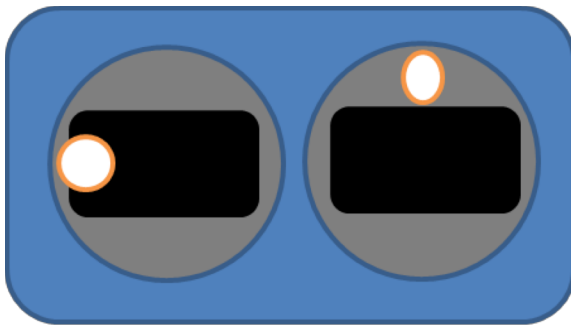
**Note:** not all combinations are valid. When the flight controller firmware detects this the serial port configuration will be reset.  
**Note:** Do NOT disable MSP on the first serial port unless you know what you are doing. You may have to reflash and erase your configuration if you do.

Identifier	Configuration/MSP	Serial Rx	Telemetry Output	Sensor Input	Peripherals
USB VCP	<input checked="" type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART1	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾
UART2	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	<div style="border: 1px solid black; padding: 2px;">                     Disabled                      Blackbox logging                      TBS SmartAudio                      IRC Tramp                      RunCam Device                 </div> AUTO ▾
UART3	<input type="checkbox"/> 115200 ▾	<input type="checkbox"/>	Disabled ▾ AUTO ▾	Disabled ▾ AUTO ▾	AUTO ▾

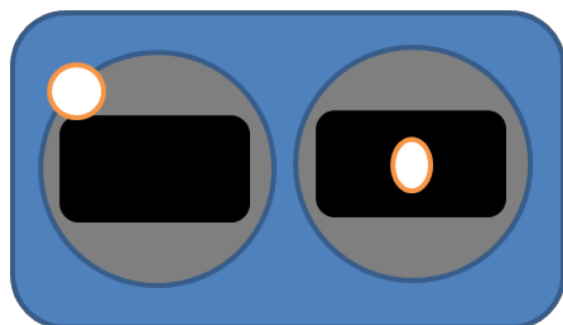
# Using The OSD

If you are using a Betaflight Flight Controller with Betaflight OSD, you can manage the Atlatl's transmit power and channel from within the OSD.

**Mode 2**



**Mode 1**

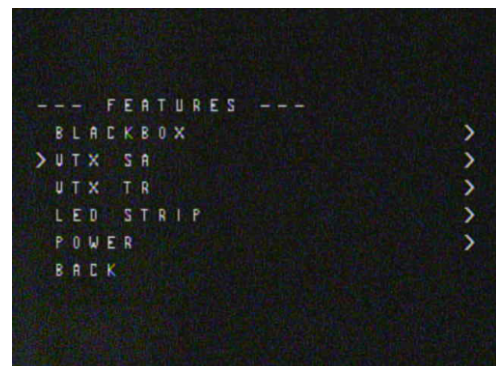


The graphics above show the stick command to bring up the OSD menu. The stick command is: throttle centered, yaw left, pitch forward. The exact stick command therefore depends on which mode your transmitter sticks are in.

In the OSD menu, use pitch up/down to move the cursor between menu items. When a menu option has a > symbol to the right of it, this indicates that it contains a sub-menu. Roll-right will enter the sub-menu. For example, in the screen to the right, moving the cursor to "Features" and then moving the roll stick to the right will enter the "Features" sub-menu.



To manage the Atlatl, enter the "Features" menu. From there, enter "VTX SA"



The screen to the right shows the current vTX settings. From here, you can change the frequency band, channel, and power level of the video transmitter. After making the changes, move the cursor to "Set" and press roll-right to confirm the settings.

The Betaflight menu has pre-set output power values. If you set the menu to 25 mW, the Atlatl will be at 25 mW. If you set the menu to 200 mW, the Atlatl will be at 100 mW. If you try to set any other value, the change will be rejected as invalid.

