FF_83
ADS-B Receiver

support@RAD-aero.com

Table of Contents

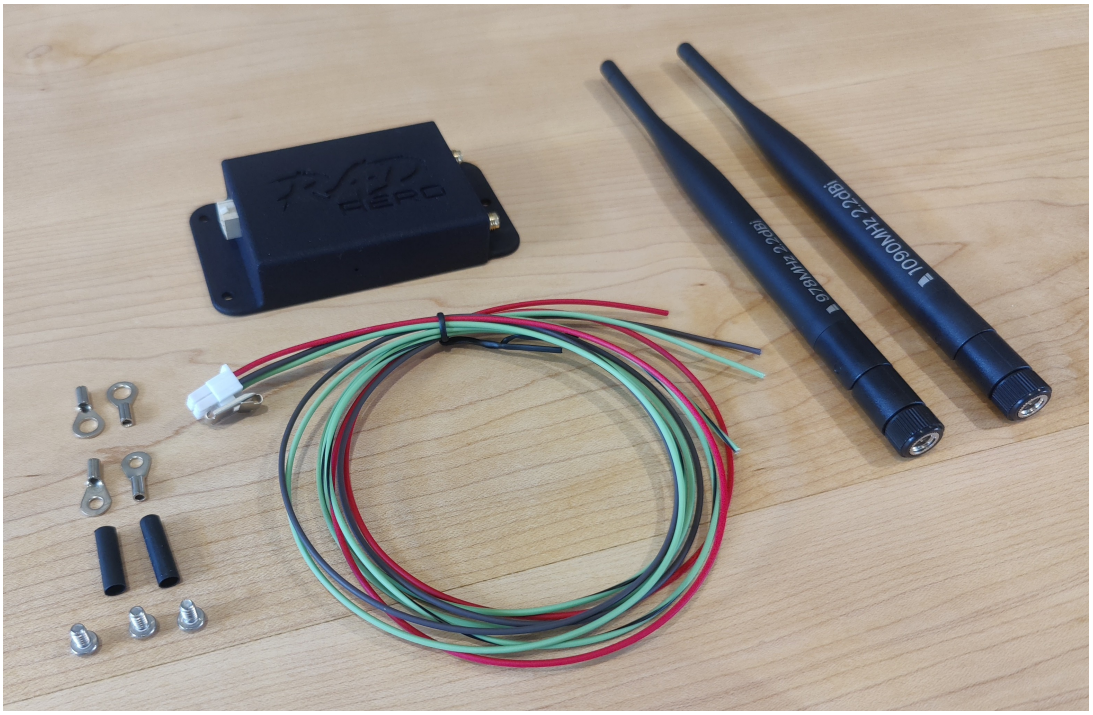
Input Voltage
- 9-36 DC input voltage
- 125mA, Recommend 1 Amp breaker / fuse

Size and Weight
- 3.75" x 2.25" x 0.75"
- 85 grams

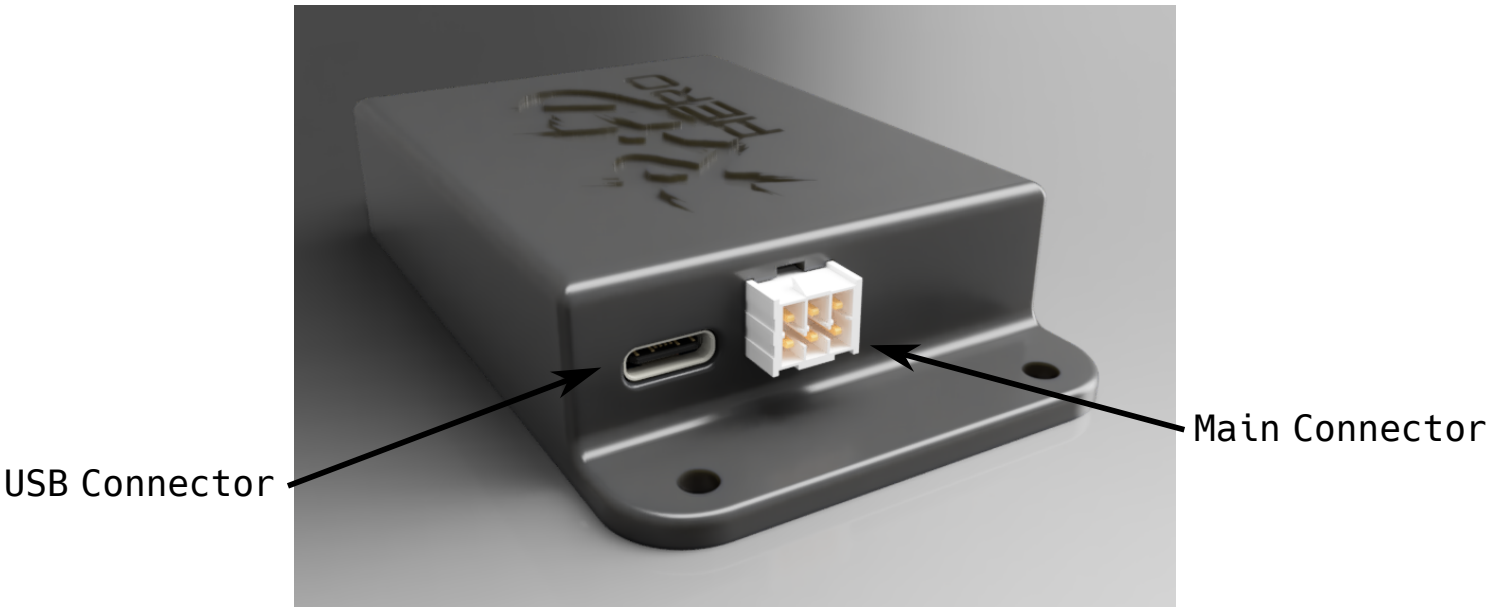
Supported Hardware
- RADaero AwesomeEFIS

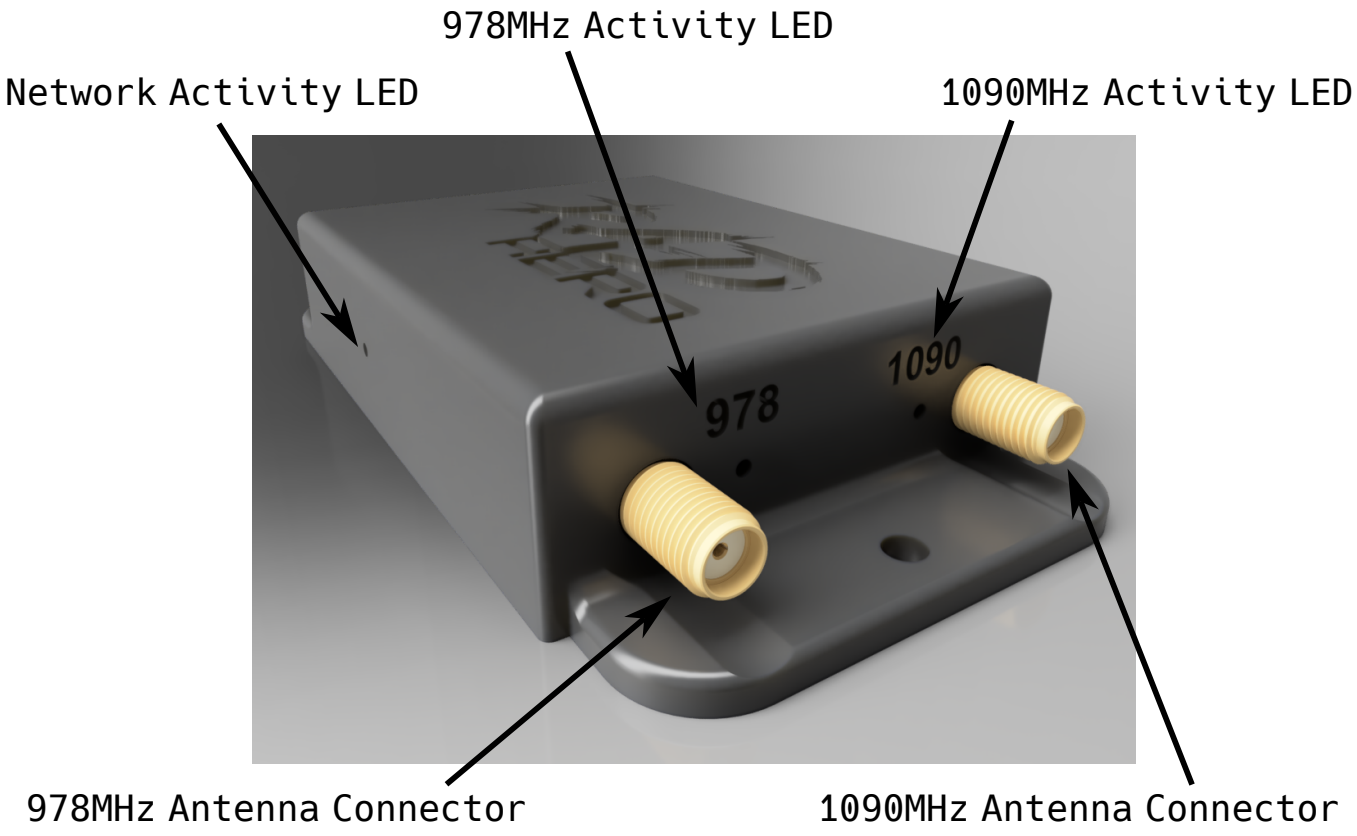
Supported Applications
- ForeFlight
- Seattle Avionics FlyQ+ EFB
- Avare
- FltPlan Go
- AeroADSB
- WingX
- 8Flight Aviator

*Additional testing is always underway to support as many applications and hardware devices as possible. If a device / application you use is not on the above list, reach out to support@rad-aero.com to inquire about testing.



=> ADS-B Receiver - FF_83
=> 1090MHz Antenna
=> 978Mhz Antenna
=> Wiring Harness
=> Ring terminals(2 sizes) w/heatshrink
=> 3x Mounting Screws, 6-32x1/4"





Connecting to the ADS-B receiver
ADS-B traffic is broadcast over WiFi following the GDL90 spec. The ADS-B receiver will host a WiFi network that you will connect your devices to. With the ADS-B receiver powered on, connect your GPS, phone or tablet to the WiFi network named RADaero-xxxxxx with the default password of "fishfinder".

Most applications and devices will automatically start displaying traffic information. If you are not receiving traffic ensure your application or device is using port 4000.

Configuration
You can change the WiFi Access Point SSID or password from the defaults by using a configuration webpage hosted on the ADS-B receiver.

Connect your phone, tablet or computer to the ADS-B WiFi network as described above. Open your internet browser and enter 192.168.4.1 into the address bar, this will load the configuration page where you will be able to change the SSID and password. The new settings will take effect after the power is cycled. If you change the network settings you will need to re-establish any connections you had previously setup.

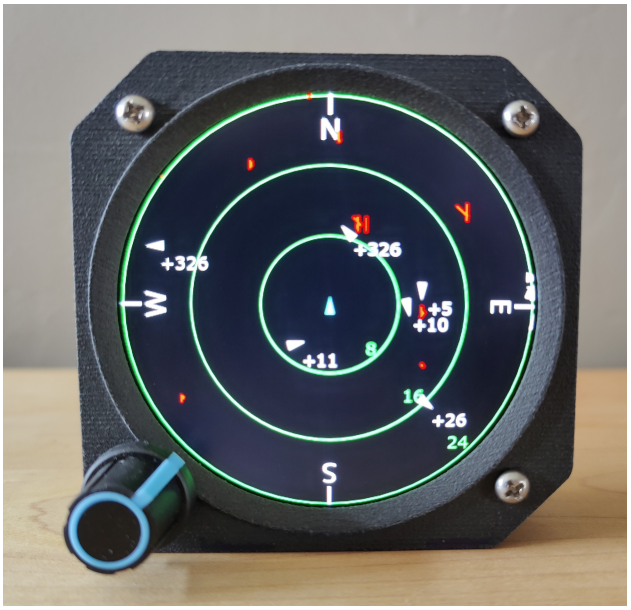
Firmware Updates
Updated firmware will be available from www.RAD-aero.com, save the new firmware file to your computer or phone.

Connect to the ADS-B receiver as described above and navigate to the configuration page, Click the Update Firmware button, select the new firmware file and click open.

A progress bar will be displayed as the firmware is being sent to the device, once the upload is complete the device will reboot and install the new firmware. Once the green network led begins blinking again the device will be ready to use.

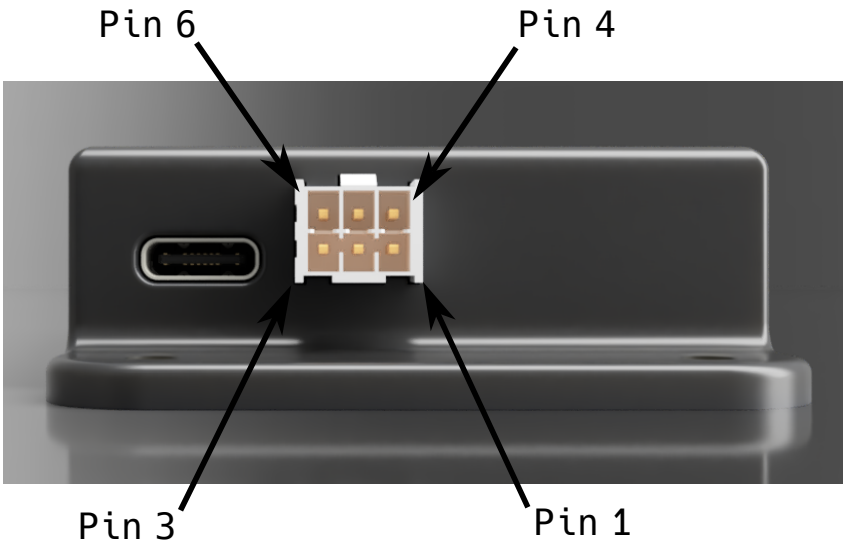
Connecting with an AwesomeEFIS
Splice RADbus High wires together and splice RADbus Low wires together. The ADS-B receiver and AwesomeEFIS can both be powered off the same 1 amp breaker / fuse, or they can be independently wired. It is not recommended to power either unit off of USB, doing so may result in poor communication.

Configuration
Your already done, No additional configuration is needed on the ADS-B receiver or EFIS. The ADS-B receiver will automatically get your "ownship" information from the EFIS that was already configured with the rest of the EFIS setup.



The preferred choice to power the ADS-B receiver is directly from any DC voltage supply up to 36v. Use a 1 amp breaker or fuse on the power wire. Optionally it can be powered from the USB-C connector.

Pin	Function	Color
1	Voltage supply, switched	Red
2	No Connect	
3	No Connect	
4	Ground	Brown
5	RADbus High	Green
6	RADbus Low	Green / Black



RADbus

RADaero devices communicates over a CAN FD based network using a custom message protocol designed for reliability, performance and security. Messages are broadcast across a shared bus, allowing multiple devices to exchange data simultaneously – no master controller required.

Every message is tagged with an identifier that defines both its purpose and priority, ensuring time-critical data cuts through instantly while lower-priority traffic falls in line.

If a single RADaero device is being installed leave the RADbus high and RADbus low wires disconnected.

If multiple devices are being installed connect all RADbus high wires together, and all RADbus low wires together.

RADbus termination resistors are installed in every device and are enabled / disabled via the configuration application. Termination resistors should only be enabled on 2 devices, with all other devices set to disable the termination resistors.

Limited Hardware Warranty
The manufacturer warrants that this product will be free from defects in materials and workmanship under normal use for a period of two (2) years from the date of original purchase. During the warranty period, the manufacturer will, at its sole discretion, repair or replace any product that is determined to be defective. Replacement products may be new or refurbished and will be functionally equivalent to the original product.

This warranty applies only to the original purchaser and is non-transferable.

Warranty Exclusions
This warranty does not cover damage or failure resulting from:
- Improper installation, wiring, or configuration
- Use outside the product's specified electrical, mechanical, or environmental limits
- Modification, disassembly, reverse engineering, or unauthorized repair
- Exposure to moisture, chemicals, excessive heat, vibration, or mechanical stress
- Power surges, improper grounding, electrostatic discharge (ESD), or lightning
- Software, firmware, or configuration errors not supplied by the manufacturer
- Normal wear and cosmetic damage
- Use of the product in any application for which it was not designed or intended

Consumable components and accessories, if any, are excluded unless otherwise stated.

Disclaimer of Implied Warranties
Except for the express limited warranty stated above, the product is provided "as is" and all other warranties are disclaimed, whether express, implied, or statutory, including but not limited to: Implied warranties of merchantability, Implied warranties of fitness for a particular purpose, Any warranties arising from course of dealing or usage of trade.

Limitation of Liability
To the maximum extent permitted by law, the manufacturer shall not be liable for any indirect, incidental, special, consequential, or punitive damages, including but not limited to: Loss of use, Loss of data, Loss of profits or revenue, Cost of substitute equipment, Downtime or operational delays.
This limitation applies regardless of the legal theory under which liability is asserted, whether in contract, tort (including negligence), strict liability, or otherwise. The manufacturer's total cumulative liability, for any claim arising out of or related to the product, shall not exceed the original purchase price of the product.

Safety-Critical Use Disclaimer
This product is not certified for use as a primary flight instrument or for any application requiring fail-safe, fault-tolerant, or life-critical operation, unless explicitly stated otherwise.
The user acknowledges that:
The product may fail or provide erroneous data
Redundant systems and independent verification are required for safety-critical use
The manufacturer is not responsible for decisions made based on the product's output
Use of this product is entirely at the user's own risk.

Software and Firmware Disclaimer
Any software or firmware provided with the product is supplied "as is", without warranty of any kind. The manufacturer does not warrant that the software will be error-free, uninterrupted, or compatible with all systems. Updates, modifications, or third-party software integrations may affect functionality and are not covered under warranty.

Governing Law
This warranty and any disputes arising from the use of the product shall be governed by and construed in accordance with the laws of the State of Oklahoma, without regard to conflict-of-law principles.

