



**Adams Aviation**  
Supply Company Limited

# The **BOM**

[Broadcasting Outer Module]

**ALL-IN-ONE  
AVIONICS SUITE**

**BOM**

**WWW.ADAMSAVIATION.COM**

# GLASS PANEL FOR THE MODERN COCKPIT

Levil Aviation has revolutionized the role of tablets in the cockpit today by pioneering the first iPad compatible wireless avionics suite. By combining state of the art avionics into a wireless, battery powered, platform. Levil Aviation provided the gateway for Electronic-Flight-Guides to become more than just a flight planning tool, but a completely independent glass panel in the palm of your hands. This technology gave birth to both the iLevil series (which is now on the 3rd generation) and to the BOM (Levil Aviation's new self powered, all in one avionics suite).



## **iLevil Sport** *Now with Data Recording!*



A simple and portable back-up to primary flight instruments. Popular for those who don't need the ADS-B platform, or to provide a gateway between existing ADS-B hardware and your tablet.



## **iLevil3 SW**



A complete portable solution for any pilot. Integrated solar panels and embedded GPS antenna makes it the ideal unit for backup avionics. Record your data (position, airspeed, altitude, etc.) using the new SD card port. Take it from airplane to airplane and it will provide peace of mind on every flight.



## **iLevil3 AW** **NORSEE APPROVED**



Are weight and space a concern? The iLevil3 AW utilizes a full suite of avionics capabilities, including pitot-static and data recording. Its design enables a permanent mount solution for Light sport and Experimental aviation.





# BOM

Broadcasting Outer Module

**All-in-One Avionics Suite**  
that mounts under the  
wing of the aircraft.

## FEATURES



GPS



AHRS



ADS-B IN



ANGLE OF  
ATTACK



AIR  
DATA



HEATED  
PITOT



AIR  
POWERED



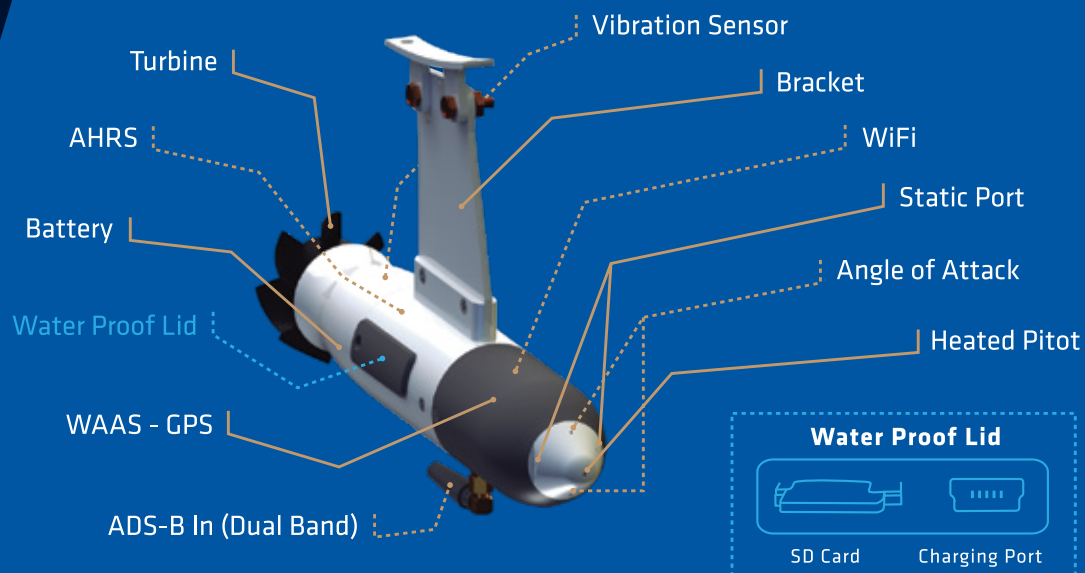
Wi-Fi



DATA  
RECORDING

## BOM Anatomy

- **NORSEE APPROVED.**  
This Product conforms  
with 14 CFR 21.8(d).
- **PATENTED**  
US Patent  
No. 9.776.730 B1



# PRODUCT COMPARISON

	iLevel Sport	iLevel 3 SW	iLevel 3 AW	BOM
<b>AHRS</b>	✓	✓	✓	✓
<b>GPS</b>	✓ (Internal antenna)	✓ (Internal antenna)	✓	✓ (Internal antenna)
<b>ADS-B</b>		IN (978 MHz/1090 MHz)	IN (978 MHz/1090 MHz)	IN (978 MHz/1090 MHz)
<b>Pitot-Static</b>			✓	✓
<b>Battery Life</b>	12 hours	5.5 hours	5.5 hours	2 hours (while on the ground)
<b>Data Recording</b>	✓	✓	✓	✓
<b>Angle of Attack</b>				✓
<b>Power Supply Options</b>	Internal battery, Solar panels and 5V by USB or serial port	Internal battery, Solar panels and 5V by USB or serial port	8-32V main bus, Internal battery, 5V by USB, or serial Port	Internal battery, charged by wind powered turbine
<b>Dimensions</b>	3.2" x 4.2" x 1.1" (8x11x3 cm)	3.2"x4.2"x1.1" (8x11x3cm)	3.2"x5"x1.1" (8x12x3 cm)	10"x3.7"x1.8" (25.4x9.3x4.7cm)
<b>Weight</b>	5oz (141 g)	10oz (283 g)	11oz (311 g)	1 lb (454 g)
<b>NORSEE Approved</b>		..	✓	✓
<b>Price</b>	\$795	\$1195	\$1395	\$1995



## What is NORSEE

(Non Required Safety Enhancing Equipment)

NORSEE is a production approval that allows Level Aviation to legally sell units for installation on certified aircrafts. Installation approval is given by a mechanic under 14 CFR 1.1 / 14 CFR 43 Appendix A definition of a Minor Alteration. If the mechanic deems the installation of the NORSEE device as minor, then the device can be installed with a simple log book entry. If the mechanic feels that the installation is considered major, then a field approval will be needed for installation.



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## **BOM (Broadcasting Outer Module)**

Levil Aviation is excited to announce the BOM (Broadcasting Outer Module). This revolutionary solution allows you to have a complete instrument panel without putting a single wire! The BOM is the first and only aerodynamic pod that mounts under the wing of the aircraft and uses wind to power itself. All components are incorporated into the BOM such as AHRS, GPS, ADS-B in, AoA, Data Recording, and pressure sensors, making it the BOM a fully independent, wireless and the perfect platform for innovation, setting the stage for the future of aviation.

Now NORSEE Approved and can it be installed certified aircraft.

### **What makes the BOM special?**

- Automatically power on/off with the vibration of the engine.
- Self-powered and self-charging system.
- High-performance AHRS and solid-state technology.
- Wireless Platform offering iOS/Android compatibility
- Heated Pitot Static
- The angle of Attack built-in



## **Features**

### **AHRS (Attitude and Heading Reference Systems)**

- **No-drift technology** the iLevil series are meticulously calibrated for optimal performance and even during aerobatics.
- **No-lag, No-tumble** the AHRS data refreshed at 14 frames per second, the max rate of turn is 500 deg/sec and attitude is completely independent of GPS
- **Pressure Data** Available when connecting the iLevil AW

### **GPS (Global Positioning System)**

Integrated WAAS GPS and antenna to allow navigation using your favorite App.

### **ADS-B Receiver (978 MHz/1090)**

- **Free in-flight Weather and Traffic** Air-to-air traffic from ADS-B Out equipped aircraft. Ground to air rebroadcast of traffic (USA Only)
- **Power Efficient Design** Maximizes reception while maintaining low power consumption, thus reducing operating temperatures and increasing battery life. No overheating concerns.
- **Outstanding Sensitivity** No need for remote antennas! Captures weather and traffic information even where the competition simply won't reach.



## AoA (Angle of Attack)

The AoA is one of the most critical instruments for safe recovery and situational awareness, highly endorsed by Aviation Associations across the world. Installation of traditional AoA systems requires extensive work and aircraft modifications. The BOM is the first solution to incorporate wireless AOA information based on the latest pressure sensing technology to give you immediate, and accurate stall warnings and feedback.

## SD Card (Data Recording Capabilities)

The BOM features the ability to record data and save all of your flight parameters. This information can be saved in multiples formats such as.FDR,GPX, .CSV. Using these three formats data can be used to recreate a flight on flight simulator programs or applications, such as Google Earth, CloudAhoy, Excel etc.

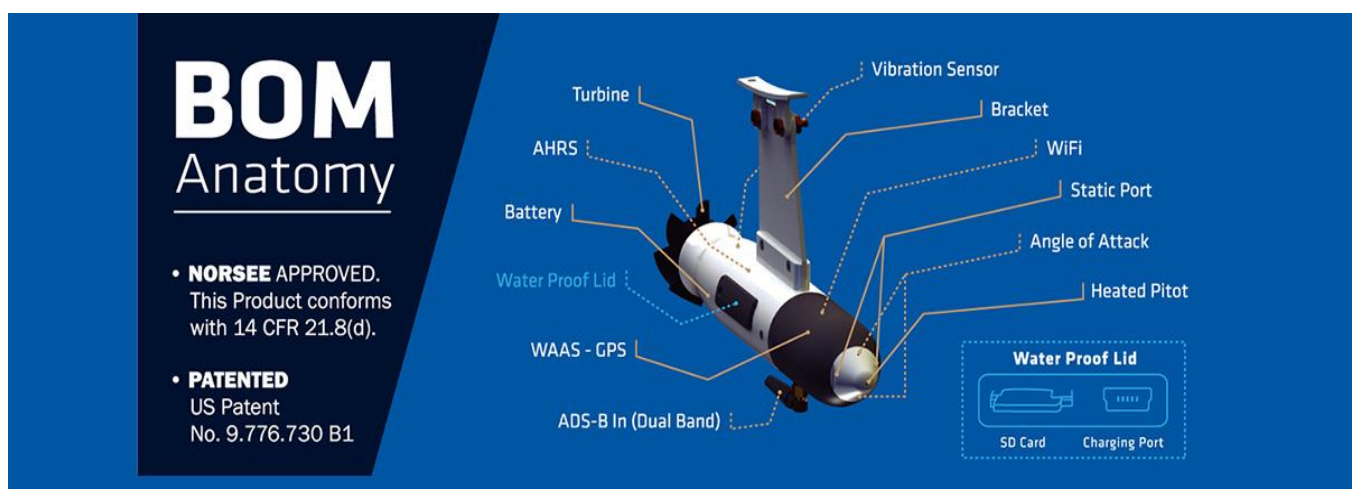
## What's in the box?

- Wireless Broadcasting Outer Module unit
- USB to mini USB cable
- ADS-B Antenna
- Mounting Brackets
- Protector case with magnetic switch
- "Remove Before Flight" flag
- NORSEE papers
- Micro SD card
- Bracket screws



## AHRS Utility App

The AHRS Utility is a free-of-subscription application designed as a visual aid when troubleshooting and adjusting your level devices. The app is available to download for free in the app store for iOS devices.



## **NORSEE Approved (Non-Required Safety Enhancing Equipment)**

NORSEE is a production approval that allows **Levil Aviation** to legally sell units for installation on certified aircraft. Installation approval is given by a mechanic under 14 CFR 1.1 / 14 CFR 43 Appendix A definition of a Minor Alteration. If the mechanic deems the installation of the NORSEE device as minor, then the device can be installed with a simple logbook entry. If the mechanic feels that the installation is considered major, then a field approval will be needed for installation.

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## iLevil Sport

Compact and lightweight, the iLevil Sport is a portable tool that combines the latest in AHRS and GPS technology for every pilot. Compatible with both iOS and Android, this friendly user device can connect with a wide variety of apps in the market. The internal GPS is able to accurately track your position on top of a chart in areas where the internal GPS of mobile devices may not work. The internal AHRS provides excellent feedback of the aircraft's orientation with respect to earth's horizon and even drive Synthetic Vision applications. Take it from airplane to airplane or leave it installed, the iLevil sport will provide peace of mind on every flight...

## Features

- WAAS GPS inside
- Roll, Pitch, Magnetic Heading, Rate of turn, inclination, and G meter output.
- A Wi-Fi access point (enables up to 6 devices connected to the same iLevil)
- Integrated solar panels to recharge the batteries over time or extend the standard 8 – hours to 12 hours on a bright sunny day.
- 3-axis gyro, accelerometers, and magnetometers professionally calibrated for aviation-grade performance.
- Micro-USB communication for remote firmware updates, data transfer, and battery charging.
- Automatic ON/OFF operations through 3.5 mm audio jack using 5V.
- IN/OUT serial communication (allows data transfer to/from other hardware inside the cockpit, i.e. ADS-B receivers)

### AHRS (Attitude and Heading Reference Systems)

- **No-drift technology** the iLevil series are meticulously calibrated for optimal performance and even during aerobatics.
- **No-lag, No-tumble** the AHRS data refreshed at 14 frames per second, the max rate of turn is 500 deg/sec and attitude is completely independent of GPS

### SD Card (Data Recording Capabilities)

The iLevil 3 SW features the ability to record data and save all of your flight information. This information can be saved in multiples formats such as.FDR, .GPX, .CSV. Using these three formats data can be used to recreate a flight on flight simulator programs or applications, to be view on google earth, or the data can be displayed on excel and used to create graphs.

## What's in the box?

- Wireless iLevil Sport device
- USB to mini USB cable
- Silicone stoppers
- Protective bag
- SD card





## **AHRS Utility App**

The AHRS Utility is a free-of-subscription application designed to display AHRS data graphically and numerically. The app is available to download for free in the app store for iOS devices.

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## **iLevel 3 SW**

This is a portable wireless integrated avionics module that is the perfect fit for any pilot. It combines the latest in GPS, AHRS, Data Recording and ADS-B in technology to bring pilots a progressive backup solution at any time. The iLevel 3 SW is compatible with multiples app on both iOS and Android devices. The internal WAAS enabled GPS and AHRS provide all the navigation information you need to turn your tablet into a real glass panel and drive Synthetic Vision Apps and other devices. The embedded dual-band ADS-B receiver allows you to monitor weather radar, METARS, etc in addition to traffic information all at your fingertips AND without any subscription.

The iLevel3 SW adds the new Data Recording feature which allows you to insert an SD Card and record all of your flight data (position, airspeed, altitude, attitude, etc.) and display the information on various platforms. You have the option to preset your desired file recording format, depending on how you wish to use the data (.gpx, .fdr, or .csv). The SW model also has solar panels (to help extend the battery life), outstanding ADS-B reception, enhanced GPS sensitivity and compatibility with your favorite apps, making it our most popular product for General Aviation.

### **FEATURES**

#### **AHRS**

##### **(Attitude and Heading Reference Systems)**

No-drift technology the iLevel series are meticulously calibrated for optimal performance and even during aerobatics.

No-lag, No-tumble the AHRS data refreshed at 14 frames per second, the max rate of turn is 500 deg/sec and attitude is completely independent of GPS.

#### **WAAS GPS**

##### **ADS-B Receiver (978 MHz/1090)**

Free in-flight Weather and Traffic Air-to-air traffic from ADS-B Out equipped aircraft. Ground to air rebroadcast of traffic (USA Only).

Power Efficient Design Maximizes reception while maintaining low power consumption, thus reducing operating temperatures and increasing battery life. No overheating concerns.



Outstanding Sensitivity No need for remote antennas! Captures weather and traffic information even where the competition simply won't reach.

### **SD Card (Data Recording Capabilities)**

The iLevel 3 SW features the ability to record data and save all of your flight information. This information can be saved in multiples formats such as .FDR, .GPX, .CSV. Using these three formats data can be used to recreate a flight on flight simulator programs or applications, to be view on google earth, or the data can be displayed on excel and used to create graphs.

### **What's in the box?**

- Wireless iLevel SW device
- USB to mini USB cable
- ADS-B Antenna
- Silicone stoppers
- Protective bag
- SD card

### **AHRS Utility App**

The AHRS Utility is a free-of-subscription application designed to display AHRS data graphically and numerically. The app is available to download for free in the app store for iOS devices.



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## **iLevel 3 AW**

Now with the NORSEE approval, the iLevel is a more advanced system designed for General Aviation, Experimental, Light Sports Aviation, Ultralights or anything else that flies, floats or hover!

The AW provides with ADS-B weather and traffic information, GPS navigation, pitot static connection, AHRS and Data Recording. Unlike the iLevel SW, the iLevel AW can be used as a portable or permanent-mounted instrument. It integrates static and dynamic pressure transducers which make indicated airspeed and pressure altitude obtained from the pitot-static system available, offering a six-pack solution broadcasted to the tablet of your choice.

The iLevel AW facilitates installation with remote GPS and ADS-B antennas, and power inputs for 12V to 28V systems. Compatible with a wide range of apps, tablets, and mobile devices, the AW is the ideal all-in-one solution for a wide variety of aircraft where weight, space, and cost are important.

Just like the rest of our products, it can connect to as many as 7 devices simultaneously, providing redundancy and almost limitless panel display options.

The iLevel AW Features 3 serial ports that can be used for data transfer between tablets and other avionics in the cockpit. The new Data Recording features allow you to insert an SD card and record all of your flight data such as position, airspeed, altitude, etc. and displays the information on various platforms.

### **Features**

#### **AHRS**

##### **(Attitude and Heading Reference Systems)**

No-drift technology the iLevel series are meticulously calibrated for optimal performance and even during aerobatics.

No-lag, No-tumble the AHRS data refreshed at 14 frames per second, the max rate of turn is 500 deg/sec and attitude is completely independent of GPS.

Pressure Data Available when connecting the iLevel AW

#### **GPS**

##### **(Global Positioning System)**

Optional GPS source meets the position source performance requirements of §91.227 for ADS-B Out in the experimental aircraft market. Reliable GPS signal eliminates GPS dropouts resulting from using the tablet's internal GPS.

## ADS-B Receiver (978 MHz/1090)

Free in-flight Weather and Traffic Air-to-air traffic from ADS-B Out equipped aircraft. Ground to air rebroadcast of traffic (USA Only).

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## What's in the box?

- Wireless iLevel 3 AW device
- USB to Mini USB cable
- GPS Antenna
- ADS-B antenna
- DB15 male connector
- User Manual
- SD card



## AHRS Utility App

The AHRS Utility is a free-of-subscription application designed to display AHRS data graphically and numerically. The app is available to download for free in the app store for iOS devices.

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