

GRIFFIN AIR

Cellular 4G Cat 1bis and 2G fallback



- High-performance, high-precision Indoor/Outdoor GPS asset tracking device and Bluetooth® Gateway
- Smart sensing disables transmission during flight but continues to collect sensor data, which it transmits after the landing
- Powered by 3 x AA user-replaceable batteries with 7+ years battery life*
- Provides location using Full GPS, Wi-Fi Access Point scanning, and Cell Tower scanning
- Bluetooth® 5.2 Gateway for tagged asset management and sensor monitoring
- Intelligent power management with cloud-based location solving and low battery alerts



Airline Certified



'Deploy Once' Battery Life



Ultra-Rugged & Waterproof



Indoor/Outdoor Location



Highly Configurable



White-Label & Integration Ready

Automatic Flight Detection

Track cargo with airline certified smart sensing capabilities that automatically disable transmissions in the air and re-enable on the ground.

Indoor / Outdoor Location

Full GPS, Wi-Fi AP scanning, and cell tower location for indoor/outdoor asset management.

Global Connectivity

Connect almost anywhere in the world with a cellular network with 4G Cat 1bis and 2G fallback.

Asset Visibility & Recovery

Monitor location & movement with the option to activate real-time tracking in case of loss or theft.

BLE Tag & Sensor Monitoring

Integrate with any third-party Bluetooth accessory for customizable sensor and condition monitoring.

Impact, Tip & Rotation

Configure alerts for high impacts (g-force), asset tipping, or rotations.

Track Longer with Industry-Leading Battery Life

Location Updates

Assumes an average of 2-hours of flight time per week

1 x Daily

4 x Daily

1 x Hourly

Estimated Battery Life*

7+ Years

2.5+ Years

6 Months

AIR TRANSPORT & CARGO | SUPPLY CHAIN & LOGISTICS | & MORE

* Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, battery selection, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more. Assumes an average of one 2-hour flight per week.

** Devices can be configured to provide more frequent location updates when the asset is in motion. Movement-based estimates are based on 2 hours of movement daily, 5 days a week.

Connectivity

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| Cellular Module | Modem operates on all major global 4G Cat 1bis and 2G bands |
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| Bluetooth® | Bluetooth 5.2 gateway reports nearby Bluetooth tags and sensors for affordable tagged asset management and sensor monitoring. |
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| SIM Size and Access | Internal Nano 4FF SIM |
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Outdoor Location (GNSS)

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| GNSS | Concurrent GPS, QZSS, GLONASS, Galileo, BeiDou |
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| GNSS Assistance | GNSS almanac and ephemeris data for greater sensitivity and position accuracy. |
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| Low Noise Amplifier | GPS signals are filtered and boosted by a SAW filter and low-noise amplifier (LNA) allowing operation where other units fail. |
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| Cell Tower Location | Sends cell tower data when GNSS or Wi-Fi signal is unavailable. |
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| Location Accuracy* | GNSS: ~1m CEP Cell Tower Fallback: ~250m-1km. Dependent on number of nearby towers. |
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Indoor Location (Wi-Fi Scanning)

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| Wi-Fi Location Scanning | Indoor asset location using Wi-Fi access point scanning. |
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| Cloud-Based Solver | Asset location is resolved using Digital Matter's Location Engine. |
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| Location Accuracy* | Wi-Fi Scanning: ~10m-100m with Wi-Fi in urban areas. |
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* Positioning accuracy specifications are provided by the module supplier and reflect ideal conditions. Device configuration, installation, environmental conditions, augmentation services, and many other factors may lead to variations in positioning accuracy.

Power

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| User-Replaceable Batteries | 3 x AA. Batteries not included. Widely available at most hardware or retail locations. |
| Supported Battery Types | Lithium (LiFeS2) recommended Battery selection is very important. Follow this link to learn more. Please dispose of Lithium batteries in a safe and responsible manner. |
| Battery Life Estimates* | Please see our Battery Life Estimator for a detailed breakdown of how different parameters (and time in flight) affect battery life. |
| Sleep Current | <10uA Average current in lowest power state. |

* Battery life estimates are influenced by several factors including temperature, installation and orientation of the device, battery selection, the frequency of location updates, network coverage, sensor integrations, peripherals, accelerometer settings, and more. Battery life calculators are available at support.digitalmatter.com.

** Movement-based estimates are based on 2 hours of movement, occurring 5 days a week, with default trip tracking parameters (location updates every 3 minutes and uploads every 30 minutes). Devices can be configured to provide more frequent location updates when the asset is in motion which will impact battery life.

Mechanics / Design

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| Dimensions | 108 x 86 x 30 mm (4.25 x 3.39 x 1.18 in) |
| Device Weight | 170g with Energizer Ultimate Lithium batteries. |
| Housing | Non-branded nylon glass housing is suitable for white labelling. |
| IP/IK Rating | Ultra-rugged and waterproof IP67 housing ensures the device can withstand impact, fine dust, and brief submersion. |
| Environment Monitoring | GORE vent disc to allow monitoring of external conditions including temperature and pressure. |
| Installation | Compact and concealable. Multiple installation options for covertly and easily securing the device to assets with screws, bolts, cable ties, rivets, and more. Stainless steel screws provided. |
| Temperature Range | Operating: -30°C to +60°C Recommended Storage: 10°C to 30°C, Humidity 30%. Store in a cool, dry place. |

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| Cellular Antenna | Internal |
| GPS Antenna | Internal |
| Wi-Fi Antenna | Internal |
| 3-Axis Accelerometer | 3-Axis accelerometer to detect movement, high-g events, and more. |
| Barometer | High-precision pressure sensor to monitor environmental conditions. |
| Diagnostic LED | Diagnostic LED indicates operation status. |
| Flash Memory | Store records if device is out of cellular coverage. View storage capacity here. |
| On-Board Speed and Heading | Current speed and heading is reported with each position update. |
| Onboard Temperature | Provides ambient temperature but may not be suitable for precise temperature logging purposes. |

Smarts

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| Automatic Flight Detection | Track cargo with airline certified smart sensing capabilities that disable transmissions in the air and re-enable on the ground. |
| Adaptive Tracking | Configure parameters to send updates based on set time intervals or when movement occurs. Adaptive tracking technology detects when the device is on the move and increases the update rate, providing detail when you need it while conserving battery when stationary. |
| Battery Life Monitoring | 'Battery Low' and 'Battery Critical' alert levels. |
| Geofencing | The server can use device location to create geofences and alerts if an asset enters or leaves designated locations. Geofences can also be downloaded directly to the device for enhanced location-based actions and alerts. View storage capacity here. |
| Impact Detection | Configure impact-detection alerts when g-forces are exceeded by a user-defined threshold. |
| Rotation Counting | Keeps a count of the number of rotations of the device. |

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| Run Hour Monitoring | Capture run hours based on movement to understand and optimize asset utilization. |
| Sleep Mode | Stationary devices enter sleep mode until movement occurs to conserve battery life and optimize data usage. |
| Theft Recovery | Switch to Recovery Mode in the case of theft or loss to activate real-time tracking for asset retrieval. |
| Tip Detection | Define a range of angles that constitutes a 'tipped' state and configure alerts. |

Device Management

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| Flexible Configuration | Configure device parameters such as position update rate, movement and accelerometer settings, and more to fit any tracking application. |
| Device Management Platform | Manage, monitor, configure, debug, update, and restart devices remotely from our cloud-based device management system . |

Integration

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| Third-Party Integration from Device Manager | TCP Direct, MQTT or HTTPS Webhooks |
| API | Command and configure the device via rich API functionality. |

Security

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| Data Security | Military-grade AES-256 Encryption from device to Device Manager to protect the integrity and confidentiality of your data. Data forwarded to third-party systems is sent via HTTPS, TCP or MQTT for end-to-end security. |
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Warranty

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| Manufacturer's Warranty | Two-year manufacturer's warranty. Exclusions apply. |
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Certifications

Airline certified on more than 20+ carriers

For a full, up to date list on certified airlines, please see:

- [Griffin Air – Airline Certifications](#)

Additional airline certifications in progress. Please contact us for certification information before making purchase decisions.

RTCA DO-160G:2010

Tested against selected environmental sections.
