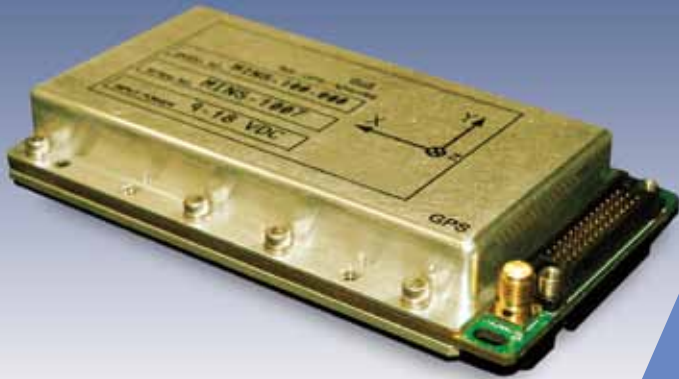


GuS™



Meeting the requirements of the smallest and lightest UAVs.

Rockwell Collins offers a revolutionary advanced integrated INS/GPS/ADAHRS/flight controls system equivalent to the size of a cell phone, that can be installed anywhere on the aircraft without a significant increase in aircraft weight. This unit includes all the analog and digital I/O interface hardware required to accommodate a variety of vehicle configurations.

GuS™ integrated, compact and robust packaging ensures a lower overall life cycle cost for manned or unmanned vehicle programs.

KEY BENEFITS

- ▶ Built-in automatic magnetometer calibration to simplify installation
- ▶ Accurate roll, pitch, heading in dynamic environments sustained turns
- ▶ WAAS-enabled, differential ready GPS

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Collins**

Building trust every day

SPECIFICATIONS

INS/GPS performance

| | |
|----------------------------|--|
| Update rate | 100 Hz |
| Start-up time | 10 sec (initial attitude); 1 min (full alignment) |
| Altitude range | -1,000 ft to 50,000 ft |
| Altitude accuracy | 45 ft at S.L., <200 ft at 40,000 ft altitude |
| Lat/long position accuracy | GPS C/A Code; differential ready, WAAS-enabled |
| GPS antenna power | 5 V |
| Airspeed accuracy | <2 knots @ 40 knots, <1 knot @ 60 knots |
| Max airspeed | 200 knots standard, up to 400 knots optional |

IMU performance

| | |
|-----------------------|------------|
| Maximum angular rates | +/- 200°/s |
| Maximum g range | +/-8 g |

Attitude accuracy (1 sigma) with GPS

| | |
|---------------------|--------|
| Pitch/roll accuracy | 0.2° |
| Heading accuracy | 0.6° * |

Extended GPS outage

| | |
|---------------------|--------|
| Pitch/roll accuracy | 0.6° * |
| Heading accuracy | 1° * |

*Using adequate external magnetic field measurement.

Overview

| | |
|--------------|----------------------------|
| Size (in) | 4.5 x 2 x 1 |
| Weight (lbs) | 0.25 |
| Enclosure | Aluminum |
| Power | 3.5 W (nominal) @ 9-18 VDC |

Environmental

| | |
|---------------------------|---------------------|
| Operating temperature | -40 to 70°C |
| Non-operating temperature | -54 to 85°C |
| Operating vibration/shock | MIL-STD-810 |
| Humidity | 95%, non-condensing |

Input/output

| | |
|------------------------|------------------|
| PWM/discrete input | (4) Channels |
| PWM/discrete output | (10) Channels |
| Serial connections (3) | RS-232 RS-422 |



- MEMS IMU
- C/A Code GPS receiver
- Single board architecture
- High-speed micro controller
- Air pressure transducers
- Triaxial magnetometer

Building trust every day.

Rockwell Collins delivers smart communication and aviation electronic solutions to customers worldwide. Backed by a global network of service and support, we stand committed to putting technology and practical innovation to work for you whenever and wherever you need us. In this way, working together, we build trust. Every day.

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