Trimble UAS1 DUAL-FREQUENCY RECEIVER INTEGRATED WITH TRIMBLE RTX AND OMNISTAR SUPPORT FOR UAV / UAS APPLICATIONS

TRIMBLE UAS1

The Trimble UAS1 is a small and lightweight GNSS module that is designed to provide precise positioning to small aircraft/drones in the unmanned vehicle industry.



The module consists of various key features that allows an integrator to design this module quickly into their system without the need for a custom carrier board design. This saves time, resources, and money when there is a need for precise position and heading. Read on below to get to know the Trimble UAS1.

DATA/POWER CONNECTOR

An unmanned vehicle is expected to have higher than normal levels of vibrations and shock. The UAS1 employs a rugged locking connector to ensure that the GNSS module always stays reliably connected to the aircraft systems.



POWFR INPUT

The Trimble UAS1 is designed to accept input voltages ranging from 7 volts to 60 volts DC. This allows the UAS1 to be compatible with a wide variety of unmanned vehicles that are powered by high voltage, high Ampere Lithium-Ion batteries. From small drones to large fixed wing aircrafts, the Trimble UAS1 can be powered easily without worry.

+ + +

+ + + + + + + + +

+ +

DATA/POWER OVER USB

The Trimble UAS1 provides the added flexibility of being powered from a 5 volts source over the Micro-USB port.



A scenario for this feature would be the ability to power up the GNSS module without the need to power up the aircraft. This allows the operator to pull trip logs.

LED INDICATORS

The UAS1 is equipped with LEDs to indicate activity. There are LEDs dedicated to show activity for Satellite Lock, RTK input, Event 1 and 2 ports, Serial 1, 3 and 4 ports and Power.



Trimble.



Trimble UAS1

+ + + + + + + + + +

IMPROVED HEAT FLOW

The UAS1 is designed to direct heat away from the GNSS module and into the airframe via the four mounting holes. Keep the UAS1 cool by ensuring that the unit is mounted with a path for the heat to be dissipated into the airframe or into a dedicated heat sink.



CAN MESSAGING

The UAS1 has the capability to output GNSS data as CAN messages. The module follows SAE J1939 standards for the output of select GNSS data. CAN is enabled by default in the UAS1.

CAMERA HOT-SHOE CIRCUIT

The Trimble UAS1 is equipped with a camera hot-shoe circuit. The circuit is industry standard and is designed to work with most makes of cameras with hot-shoe functionalities.



Geo-position your photographs by connecting your drone's camera hot-shoe interface to the UAS1.

Note: By default the UAS1 board has its hot-shoe circuit active. You may log triggers from the hot-shoe circuit using the Event 1 port on the GNSS module. If there is no requirement for the hot-shoe circuit then one may disable this circuit by moving the jumper shown in the below figure to pin 2 and 3. This returns normal event function to the Event 1 port.



DATA/POWER INTERFACE PIGTAIL

Easily integrate the UAS1 using the provided interface cable. The cable has the correct mating connector for the UAS1 locking connector. All 26 connections from the UAS1 are brought out into 5.5inch long leads, the ends of which are stripped and tinned. All the leads are labeled for easy identification of the signal and quick integration of the UAS1 into a UAV system.



TRIMBLE Integrated Technologies 510 DeGuigne Drive Sunnyvale, CA 94085 Americas & Asia-Pacific Europe/EMEA

Email: sales-intech@trimble.com

© 2019, Trimble Navigation Limited. All rights reserved. Trimble logo are trademarks of Trimble, registered in the United States and in other countries. All other trademarks are the property of their respective owners. (09/19)

Trimble.