



Portable and accurate mobile mapping solution

Standalone survey solution with high resolution imagery

A state of the art technology that can be up-and-running in 2 minutes

High quality tight hybridization of sensors for an optimum accuracy

High quality imagery to position and measure directly within images

Standalone platform

A all in one integrated tool :

- Dimension 15x11x5cm -5,9 x 2 x 4,34 inch
- Weight less than 500 g
- Power supply on cigar lighter socket or battery
- Wind shield swiveling support.

Ultra simple surveying tool

- 2 minutes setup for ready to survey
- Full Auto-calibration
- Single button recording
- Storage on removable unit (USB pen drive or external hard disk)
- No computer needed for surveying

All integrated state of the art technology

High quality, High frame rate images

- 5 megapixel CCD for a perfect visibility of details in the image
- Inter-distance of acquisition configurable from 1 to 20 m -
- No velocity constrains during survey
- Auto gain, auto white balance
- Auto exposure time down to 1/2000th s

High precision and High availability positioning

Combining a 50 channels GPS L1 C/A and integrated high sensitivity antenna

Inertial Measurement Unit (IMU) and Barometer hybridized with GPS data

Dead reckoning navigation to survey in difficult conditions such as inside tunnels, under bridges, heavily wooded area or urban canyon.

Slope measurement and automatic barometer set-up

Dedicated Post processing

Proprietary algorithms used to post process all collected data by combining GPS, inertial sensors and imagery in order to provide an accurate position and orientation for every image captured by the imajbox[®] in almost all GPS reception conditions.

Post process navigation system are available for :

- Car / trucks (roadway survey)
- Train (railway survey)
- Boat (waterways survey)



Imajbox extensions for highly demanding accuracy applications



Odometer - Doppler radar

In GPS degraded or outage situations, it is important to have reliable information on the speed of the vehicle. The imajbox estimates speed variations with its accelerometers. However, in some demanding situations (e.g. long dead reckoning periods or very dense urban environment), the measurement might not be precise enough.

To address these specific situations, Imajing proposes an optional self-contained sensor that provides accurate absolute speed and distance information in any kind of navigation environment: a Doppler radar. This sensor can be easily mounted on the side of the vehicle and directly plugged into the imajbox. Radar-based speed measurements improve the accuracy of the speed estimation and guarantee a precise positioning in any kind of situations.

The additional Doppler radar works with no contact, therefore imajbox remains a portable mobile mapping system which can be mounted in a minute.

DGPS post - process module with RINEX files

Thanks to an optional differential GPS (dGPS) post-processing module, measurements from an external ground reference station can be exploited in order to improve positioning accuracy down to 50 cm DRMS or better.

This module works with the RINEX files provided by a reference station whose instantaneous distance to the rover should not exceed the 30km.

Both dGPS code-based and kinematic phase-based position estimation modes are available and can be applied any time after the survey.

Product specifications

Survey tool	Size : 10 x 15 x 5 cm / 5.9"x 2"x 4.34" Weight : 470 g (with 8mm optic)
Interfaces	- Serial port RS 232 - Real time tracking with imajtrack software (included) - Remote control (Protocol and PC application provided) - USB2 host for USB pendrive and HDD (1A power supply)
Positioning tools	GPS : L1 C/A 50 channels- SBAS corrections-High sensitivity antenna INS : Inertial navigation system (Inertial measurement unit and barometer)
Imagery	- CCD sensor 5 megaPixels - High quality optics from 60 to 82° view angle
Optics	3 optics 8 mm (view angle 60°) in option 5 mm (view angle 82°) 5 mm (view angle 82°) high resolution, high brightness
Positioning accuracy	1 m CEP* in 2D, in open sky or with dead reckoning under 20s 50 cm DRMS with dGPS post-processing Measurement relative accuracy in 3D : 3% within 15 m from camera * 1 m CEP with SBAS corrections availability (EGNOS, WAAS, GAGAN, MSAS) In zones where no corrections are available, a DGPS post processing is possible * CEP : Circular Error Probability
imajbox case content	- imajbox - Cable to cigar lighter socket - Aluminum plate mounting + 3 fixing screw - 3 powerful suction pad attaches - 1 fast USB pendrive - 32 GB - User documentation - 1 CD ROM including Configuration software and post processing software
Supply	9 to 24 V (with Cigar lighter socket cable) Consumption : 6,5 W under 12 Volts - without HDD
imajview software	Windows XP 32 bits, Vista and Windows 7 32 and 64 bits compatible Required memory : min 2 GB



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imajing range

- imajbox Portable mobile mapping tool for survey
- imajtrack Organize and control of surveys
- imajview Process and visualization software suite
- imajnet Storage and distribution of network data and images via internet