



**MOBILE
MAPPING**

Portable mobile mapping system designed to survey linear infrastructures from any vehicle.

Mounted on trains, cars, trucks, helicopters and boats, imajbox® can survey from a few to thousands of kilometers.



Accurate

Proprietary algorithms to process the sensors' raw data for the continuous and accurate spatial positioning.



Simple

Independent, stand-alone and auto calibrated.
No wiring required.



Productive

Survey at high speeds for large scale data collection.



Connected

Controlled by Wi-Fi and connectors for external sensor integration.



Adjustable

Easy to mount and adjust in all directions without having to calibrate.

imajbox® 3TX+ FOR RAIL AND ROAD MAPPING.

The imajbox® is the perfect tool to collect mass geo referenced up-to-date data along transportation and utility networks.

A solution to many problems:

- GIS and mapping
- Infrastructure assessment
- Engineering studies
- Linear Referencing System
- Maintenance management
- Work control
- Security
- Monitoring

imajbox® 3TX+

GNSS RECEIVER

448 channels for simultaneous tracking of all visible satellites

GPS: L1, L2, L5

GLONASS: L1, L2, L3

Galileo: E1, E5a, E5b, AltBoc

BeiDou: B1, B2

SBAS: EGNOS, WAAS, GAGAN, MSAS, SDCM (L1, L5)

QZSS: L1, L2, L5

Integrated dual channel L-Band receiver

Supported real time modes:

Standalone, SBAS, dGNSS*, RTK*,

Supported post processed modes:

Kinematic (Rinex)

MODE	HORIZONTAL ACCURACY (RMS)	VERTICAL ACCURACY (RMS)
Standalone	1,2m	1,9m
SBAS	0,6m	0,8m
DGNSS	0,4m	0,7m
RTK	0,6cm + 0,5ppm	1cm + 1ppm

**requires streaming of NTRIP frames for base stations corrections via WiFi.*

Time to first fix:

Cold start < 45s

Warm start < 20s

ANTENNA

Integrated RTK grade L1/L2/L5

GPS/GLONASS/GALILEO/BEIDOU antenna

Connector for external antenna (SMA)

Auto-switch to an external antenna

Patch antenna for external use:

GPS/GLONASS L1/L2 patch antenna

Interface for lever arm input

OPTICS

Fixed focus multi-lens

Deep depth of field

Sharp from 0,5 to 100m from camera

HFoV

100°

IMU

DX4 inertial movement unit 6 axis

Gyroscopes:

Dynamic range: $\pm 480^\circ/s$

In-run bias stability: 6.25°/hr

Angular random walk: 0.3°/hr

Accelerometers:

Dynamic range: $\pm 18g$

In-run bias stability: 0,1mg

Velocity random walk: 0.029m/sec/√hr

IMAGE SENSOR

Sensor

Single CMOS Global Shutter 8,9MP

Resolution

Standard: 4096x2160 pixels

Cropped for high speed: 2816x2160 pixels

Auto-trigger

Inter distance of image acquisition configurable (from 0,5m to 10m)

Maximum Frame rate

10fps (full resolution)

17fps (high speed mode)

Ultra-fast auto-exposure

3 zones presets

Optimized debayering

STORAGE

Internal SSD

512 GB

Support for real time external storage via USB3 (Pendrive, HDD, SSD)

Data management interface

for copying from internal SSD to USB

Support for Ethernet

SAMBA share for accessing internal SSD directly

CONNECTIVITY

USB 3

Ethernet

Wi-Fi host (for web remote control)

Wi-Fi client (for corrections)

SOFTWARE

imajbox® is delivered with Post processing software for Windows x64:

imaging browser

imaging 3D Pro

Kinematic post processing module

imaging InertialVision fusion algorithms

OPERATIONAL LIMITS

Survey speed

0 to 180 km/h

Up to 300 km/h with high speed mode

Temperature

-10°C to 50°C

Protection level

IP 65

HARDWARE

Dimensions

Height: 175 mm

Length: 165 mm

Width: 145 mm

Weight

3 kg

Power supply

12V / 3A

Internal battery for 3h standalone survey

Package

1 unit delivered in a small fly case

3 suction cups

1 USB Pendrive 512GB

1 external patch antenna (L1/L2)

Security strap

Cigarette lighter power supply cable

AC/DC converter 110/240V 12V 3A

imajbox®

DATA COLLECTION

Raw surveys

POST PROCESSING

Processed surveys

IMAGING 3D PRO

Point clouds (.pcd, .laz)
Depth maps

imajview®

GIS PRODUCTION

Shape files
.kml
.csv
.jpeg

imajnet®

WEB DIFFUSION