

LYNX

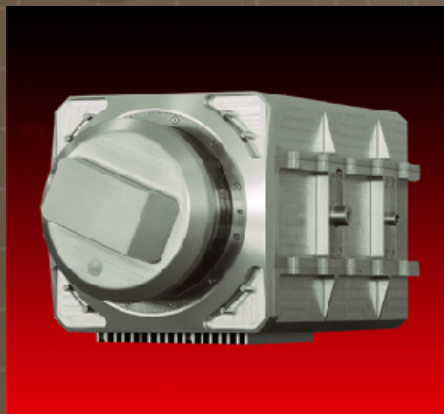
MOBILE MAPPER™

WELCOME TO THE REVOLUTION

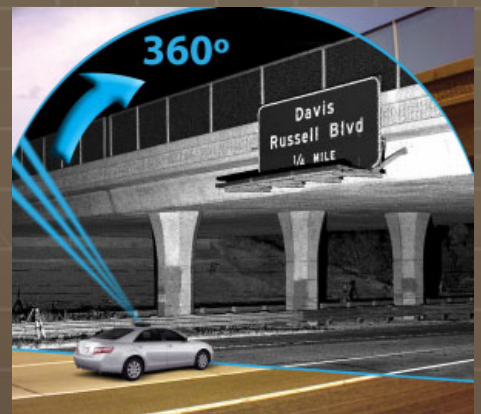
Optech's LYNX Mobile Mapper represents the next generation in the rapid collection of survey grade 3D data. This revolutionary mobile mapping system integrates the newest innovation in lidar sensors with the best-in-class imaging, navigation, product warranty and support. The LYNX Mobile Mapper combines Optech's world leading sensor technology and customer support with the best available third party tools – creating an unbeatable surveying solution that maximizes return on investment by improving the efficiency of ground-based lidar collection by an order of magnitude.

The LYNX Mobile Mapper survey solution is designed for collecting engineering/survey grade lidar data over large areas that are impractical with static lidar sensors but require an accuracy and resolution that exceed airborne technologies. With a system accuracy better than 5 cm and a resolution of up to 1 cm, the LYNX Mobile Mapper offers unprecedented 3D detail – all from a vehicle moving at speeds up to 100 km/hr.

Over three years in development,
the LYNX Mobile Mapper is the
definitive answer for your large
area engineering and survey work.



The LYNX Mobile Mapper™ sensor head



Optech's LYNX Mobile Mapper™ provides a continuous multiple perspective 360° FOV

Optech's newest family of products incorporate the company's proprietary iFLEX™ technology. The result of decades of research into lidar measurement techniques and electronic design, iFLEX™ is the common platform at the core of Optech's next generation lidar technology.

Optech
The Lidar Company™

One Product - Many Advantages

The LYNX Mobile Mapper™ Advantage

Operational Configuration

The LYNX Mobile Mapper consists of a command and control unit (integrated with a embedded navigation solution) that is located in the vehicle. The unit controls from one to four Optech lidar sensors and two calibrated, passive imaging cameras. Operator control is exercised through the use of a laptop connected to the command and control rack.

Mounting

The LYNX Mobile Mapper sensor array is an integrated, rigidly mounted platform that is usable with standard vehicle roof racks and is adaptable to custom installation. The standard mounting platform contains adjustable orientation mounts for two lidar sensors and two cameras as well as mounting for the system IMU and GPS antennae. A rigid design for the entire mount structure ensures that alignment and accuracy between the sensors and the command equipment is maintained.

Navigation

Navigation by Applanix/Trimble represents the industry leading solution for the processing of dynamic navigation data. Tightly coupled processing combining GPS and INS measurements maximize the accuracy of the navigational solution and lidar and image geo-registration.

Software

All models of Optech's LYNX Mobile Mapper are equipped with a complete software solution that allows for best-in-class survey planning, project executions, inertial/positional processing, lidar post processing and information extraction. The LYNX Mobile Mapper software solution consists of LYNX-Survey and LYNX-Process.

Power

The LYNX mobile mapper is powered directly from the vehicle battery/alternator system. No auxiliary power unit is required.

Eye Safety

The LYNX Mobile Mapper is an IEC/CDRH Class 1 lidar solution under all operating conditions. Class 1 designation ensures that the operational functionality is never limited by risks associated with potential eye safety hazards. The invisible eye-safe beam also eliminates the chances of distracting drivers and onlookers in populated survey settings.

Support and Warranty

1 year Optech system warranty with 24/7 telephone and email support.

The Technology Difference

The LYNX Mobile Mapper is equipped with the latest in lidar innovation. The onboard lidar sensors each possess Optech's patented iFLEX technology, allowing for unsurpassed system specifications including:

Maximum Range	>100 m (to 20% reflectivity target)
Range Precision	±7 mm (1 sigma)
Coverage (spatial resolution)	Up to 1cm @ 100 km/hr †
Absolute Accuracy	±5 cm (assumes good GPS data)
Position/Orientation System - POS	Applanix POS LV 420
Scanner Field of View	Full 360° without obscurations
Scanner Rate	9000 RPM
Measurement Rate	100,000 shots/sec per sensor
Measurements per Shot	Up to 4 simultaneous (1st, 2nd, 3rd and last each per sensor)
Number of Sensors	1 to 4 Lidars
Cameras	Up to 2
Capable Vehicles	Fully Adaptable
Operational Temperature	-20°C to 40°C (outside ambient)
Storage Temperature	-40°C to 80°C
Eye Safety	IEC/CDRH Class 1

†dependent upon lidar configuration