

IntelAS™ HD

Mobile LiDAR System



- Mobile LiDAR system
- Works at Highway Speeds
- Motion Reference Unit
- Fiber Optic Gyro Compass
- GNSS RTK Positioning
- Dual GNSS Heading
- 700,000 Points Per Second
- 100m Range Capability
- $\pm 1\text{cm}$ Accuracy at 100m
- $42^\circ \times 360^\circ$ Field Of View
- 0.01° Angular resolution
- Factory Calibrated
- Water & Dust Resistant
- Rugged Laptop PC
- HYPACK, QINSy or EIVA
- Training & Support

NEW FOR 2017

IntelAS™ HD

Mobile LiDAR System



- New 'Tightly Coupled' GNSS and INS system
- LiDAR sensor tilted upwards to optimize beam coverage
- Real-time GNSS and IMU RAW data recording to PC for future Post Processing
- Simple upgrade path for existing IntelAS™ users
- New 'Quick Config' features for simpler operations



Surveying New Zealand's rural roads and highways with mobile LiDAR

The iLinks IntelAS™ mobile LiDAR system was put to work in New Zealand this month to survey a number of rural roads, highways and city center proposed, and existing, bus routes.

The IntelAS™ system was fitted to a compact SUV and was powered from the 12 volt auxiliary power socket.

GNSS positioning was enhanced by RTCMv3 Network RTK corrections which provided an overall dynamic 3D positioning quality of 0.03m RMS or better throughout the campaign. Positioning accuracy was confirmed by scanning local survey control points.

All Surveys were carried out at normal road and highway speeds of 50 to 80 KPH using number of



different combinations of the 32 lasers available to the IntelAS™ mobile LiDAR system. While a Temporary Traffic Management Plan (CoPTM) was in place, there was no disruption to normal traffic flow throughout the surveys.

Geo-referenced digital images were collected together with the LiDAR data to aid the interpretation and feature extraction process.

Mobile LiDAR is an exceptional tool for the transportation market, not only is it safe and efficient, long stretches of roads and highways can be surveyed in great detail without closing off roads or causing any disruption to the public.

Accurate 3D point clouds were generated in real time using user defined QC parameters with no requirement for any type of Post Processing.

Georeferenced images were collected using a standard NIKON D3300 digital camera, which was interfaced to the data acquisition software via a standard USB cable. Images were downloaded from the camera, geo-referenced and then stored on the data acquisition PC alongside their corresponding LiDAR data. Visit www.ilinks.us or www.ilinks.co.nz to download sample data sets and geo-referenced images. Watch an example LiDAR data fly-through at <https://www.youtube.com/watch?v=7qs6ceTC45Q>

