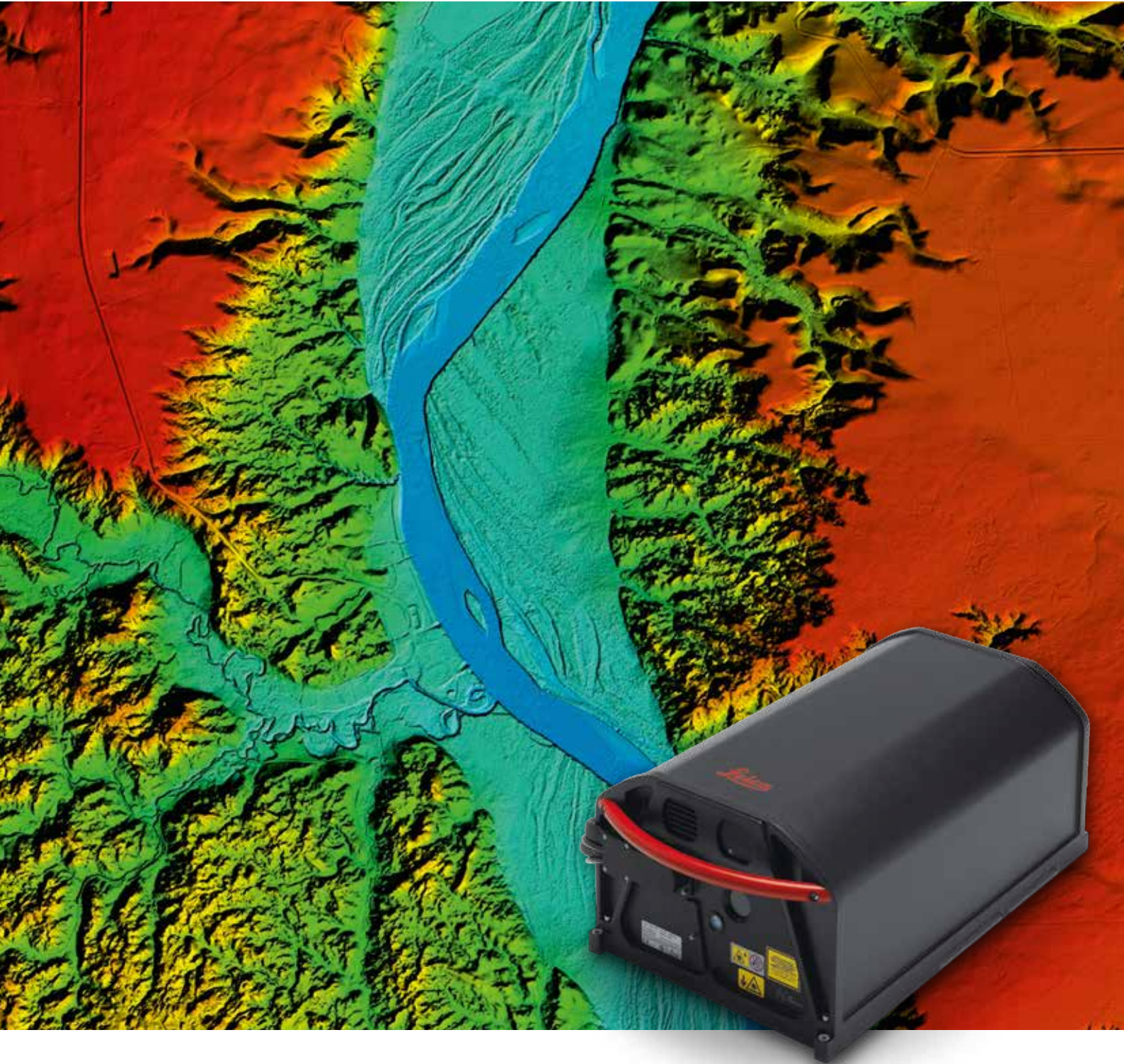


Leica ALS80

Fast & flexible airborne
LiDAR sensor



Three Models, One Result.

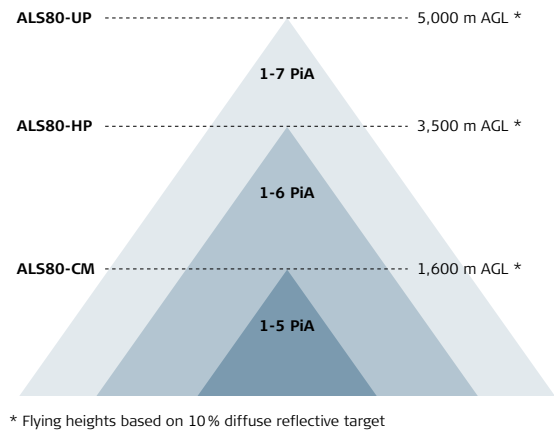
Highest Productivity in all Applications.

Imagine an affordable high resolution LiDAR system with an industry-leading 1.0 MHz pulse rate, capable of meeting your specialised needs now, and that is easily upgradable to a full-capability configuration as your business grows.

Imagine producing high density point clouds for corridor, urban, flood plain or general-purpose airborne mapping in a fraction of the time it took previously. Imagine being able to perform wide-area mapping from high altitudes to obtain nearly 8 km swath.

The Leica ALS80 is a single family of systems that offers this level of flexibility and productivity, without compromising on quality and accuracy. Three models, Leica ALS80-CM, ALS80-HP and ALS80-UP, share a common platform (high-performance laser, scanner, range counting electronics, position/attitude measurement subsystem and user interface, flight planning and execution software), to create a range of laser scanners designed to meet the varied needs of the airborne survey market.

All three models feature a unique multiple-output scanning system. This new approach allows the system to double the pulse rate and scan rate of single-output systems, without the use of multiple scanner assemblies or lasers. The elegance of this implementation adds to the stability and consistency of the high-point-density data product delivered by the system, without increasing the complexity of system control. The AutoScan feature automatically adjusts scan rate to keep more uniform along-track spacing as aircraft speed varies.



Leica ALS80 – a total package

Leica ALS80 systems come complete with peripheral products and software that provide a seamless workflow from mission planning through point cloud generation.

Planning for all Leica ALS80 models is accommodated using Leica MissionPro planning and evaluation software, including optimising both system settings as well as flight line layout. The intuitive AeroPlan pull-down menu allows manual or automated optimisation of system settings.

Leica FlightPro provides an information-rich user interface for both operator and pilot, allowing both crew members access to critical data on flight navigation, progress and system performance. The optional "remote control" software module allows the operator and pilot to view different presentations simultaneously to maximise productivity.

Need room to grow? No problem.

The unique modular design of the Leica ALS80 offers numerous benefits, including easy growth options. Did your business start with lower-altitude corridor mapping, but is expanding? Any Leica ALS80-CM can become a ALS80-HP at the user's site. Expanding your business into forestry and environmental areas? Add the optional Full Waveform Digitiser at any time, at any location.

Pick the model for your applications

CM



Leica ALS80-CM is designed for city and corridor mapping applications from lower flying heights. Ultra-high-density can be achieved by flying in small aircraft or mounted in helicopter pods, taking advantage of the low-profile scanner.

HP



Leica ALS80-HP is designed for general-purpose mapping at the flying heights most widely used, and can accommodate greater terrain relief due to its higher maximum flying height.

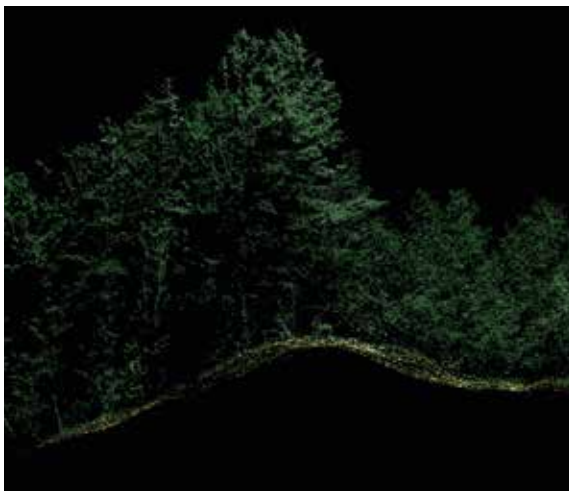
UP



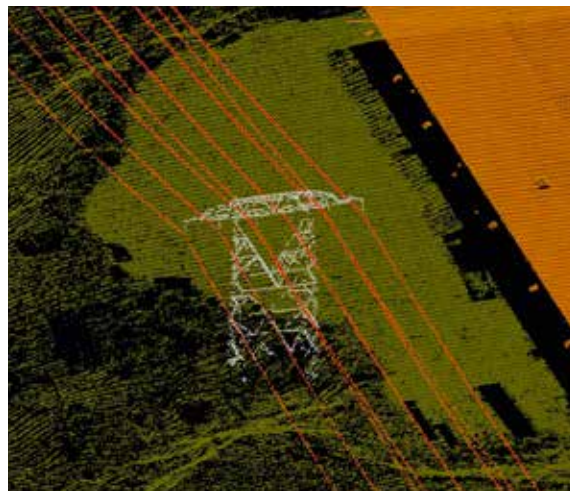
Leica ALS80-UP is a high altitude variant, capable of the market's highest flying heights, for wide-area mapping on a state or national level, but now with a dual-output scanning system, doubling point density.

Unlimited applications

- County/state/national mapping
- 3D city mapping
- Corridor mapping
- Forestry mapping
- Coastal studies/Flood plain mapping
- Precision agriculture
- Snow pack measurement



The industry's highest point density combines with unlimited returns from each outbound pulse to provide outstanding canopy detail for forestry studies.



High sensitivity allows high definition on power line infrastructure, including the smallest structural elements and small-diameter ground wires, and does so from greater flying heights than other sensors.

Quick, comprehensive post processing

Post-flight data processing uses NovAtel Inertial Explorer for GNSS/IMU data reduction and Leica CloudPro for generation of the point cloud. NovAtel Inertial Explorer utilises "tightly-coupled" GNSS/IMU data processing to allow full trajectory accuracy, even when satellites are temporarily obscured, reducing the need for inefficient and lengthy low-bank-angle turns from one flight line to the next.

Leica CloudPro provides multi-threaded processing for reduced processing time and a command-line interface compatible with your custom workflows. And the included Leica LSS Viewer allow simple, fast viewing and measurements to be made in the produced data set.

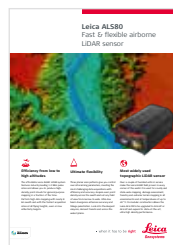
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Class 4 Laser Product

Invisible laser radiation: Avoid eye or skin exposure to direct or scattered radiation

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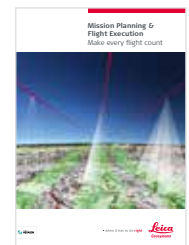
Leica ALS80
Fast & flexible airborne
LIDAR sensor



Leica ADS100
Airborne digital sensor
Airborne evolution



Leica RCD30 Series
80 MP multispectral
RGBN imagery



Leica MissionPro & Leica FlightPro
Flight execution &
mission planning
software