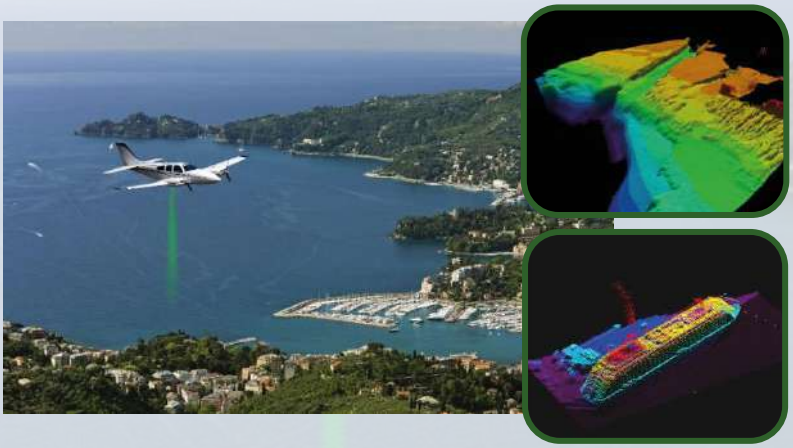
Laser transmitters for Airborne & Underwater LiDAR

BrightSolutions
SOLUZIONI LASER INNOVATIVE



Available specifications

ns, sub-ns and ps;
1064, 532, 355;
multi-wavelength configurations;
up to 100W output average power;
optimization in specific rep. rate ranges;
Single-unit monolithic design;
Customized MOPA architectures;
Miniaturized footprints;;
Hermetic sealed packages;
Extended Operating & Storage temperature
Beam expanding, beam shaping

Bathymetry

Higher pulse energy, Higher rep. rate and Shorter Pulsewidth laser source models are continuously required for improving the speed, altitude and resolution of the flying systems. **Compact and miniaturized** laser sources have been realized for Bathymetry on rivers and lakes.

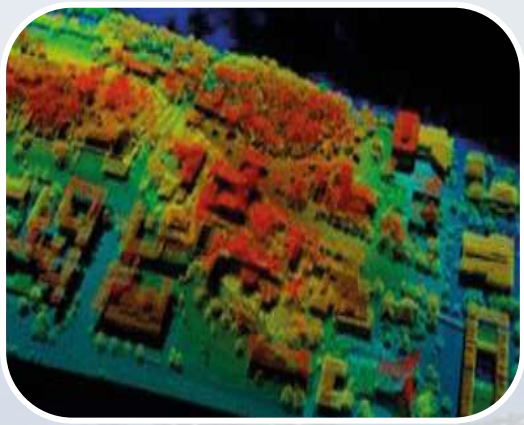
More than **30 operating custom lasers** are on the field.

CZMIL (Coastal Zone Mapping & Imaging LiDAR) - USA

Custom Laser source with two collinear laser beams:
- 3.5 mJ pulse energy at 532 nm, 2.5 mJ pulse energy at 1064 nm
- 2 ns pulsewidth at 10 kHz;
The laser beam 532 nm detects the sea bottom,
The radiation at 1064 nm detects the sea surface.

DPSSL for High Altitude 3D Mapping (civil and defense programs)

1064 nm or 532 nm or combined
400 ps; up to 700 µJ, 1 MW peak power
Up to 100 kHz;
Hermetic ruggedized all-in-one.
High longitudinal accuracy



Up to 40 W @ 532 nm
400 ps
20 - 100 kHz
Low jitter
M2 < 1.5
Air-cooled up to 10 W

Up to 100 W @ 1064nm
500 ps
20 – 100 kHz
Low jitter
M2 < 1.5

up to 100 W @ 1064 nm
up to 1 MHz
< 100 ps
Low jitter
Water cooled
Single unit design

Flash Imaging LiDAR for underwater

532 nm
> 100 µJ @ 30 kHz
30 – 100 kHz
500 ps to 2 ns
Low jitter
Contact cooled

Wedge HF 532 plus *Compact, sealed and rugged package for underwater environments.*

>3 mJ @ 532 nm
1.7 ns
1 kHz
Low jitter
Contact cooled

2018 UTOFIA Underwater Time Of Flight Image Acquisition system – EU *Compact and cost-effective underwater range-gated imaging system for turbid water.*

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