Introducing the completely redesigned OPAL™ 3D LiDAR scanner from Neptec Technologies. The OPAL™ is one of the most powerful and versatile 3D LiDAR sensors, and features optimized perception capabilities for detecting small targets at range. OPAL™ scanners are fully compatible with the 3DRI™ Software Development Kit (SDK), a library of proprietary algorithms for developing applications for Object Detection, Tracking, and Classification.

OPAL™ incorporates the latest innovations in laser optics and intelligent 3D processing to deliver an unprecedented combination of range, data density, and acquisition speed in a rugged, all-weather package.

The new OPAL™ Performance Series 3D LiDAR

Designed for real-world, mission-critical autonomy applications

HIGH RESOLUTION
300,000 points per second (single return mode)

RUGGED
-40°C to +55°C operating temperature, resistant to shock and vibration, in an IP67-certified enclosure

CONSISTENT
Reliable low-reflectivity target detection in real-world scenarios

OBSCURANT PENETRATING
Unparalleled performance in dust, smoke, rain and fog

LONG RANGE
Superior range performance up to 1,000 m

CONNECTIVITY
Integrated GigE switch and port for GPS/INS

USER FRIENDLY
Intuitive 3DRI™ software tools for rapid application development

INNOVATIVE
Advanced laser optics and 3D processing in a size, weight and power optimized package

www.neptectechnologies.com
Performance in obscurants is dependent on obscurant type and density, laser pulse energy, and target characteristics. Please contact NTCSupport@neptec.com to discuss your specific requirements.

Achievable maximum range is dependent on target size, reflectivity, angle of incidence, and PRF, in clear atmospheric conditions.

Accuracy is the degree of conformity of a measured quantity compared to its actual (true) value.

One sigma at 12 m range as measured under Neptec test conditions.

Precision, or repeatability, is the degree to which further measurements provide the same result. One sigma at 12 m range as measured under Neptec test conditions.

Typical power consumption considers the OPAL scanner operating at typical processing demands, with no external peripherals connected to available PoE ports. Power available for peripherals connected to the PoE ports is 100 W total.

Assumes adequate convection airflow over the unit. For applications in environments exceeding +40°C, please contact NTCSupport@neptec.com to discuss mounting options.

Specifications are subject to change without notice.

Easy to integrate with IP connectivity

For more information please contact opal_sales@lumibird.com or visit our website.