RIEGL RiLOC®-E

RIEGL's entry-level IMU/GNSS solution for miniVUX-series laser scanners

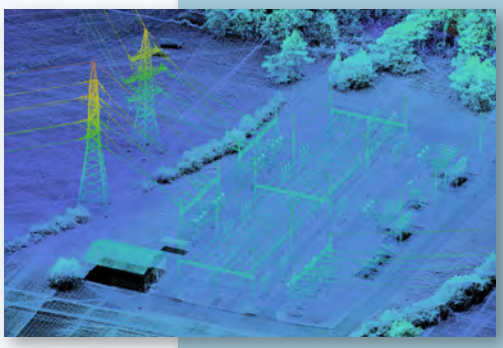
RIEGL now offers their own miniVUX-series LiDAR system solution with a fully integrated subsystem for localization and orientation (**L**ocalization/**O**rientation **C**omponent).

This version of the miniVUX-SYS includes a Micro Electro Mechanical System (MEMS) Inertial Measurement Unit (IMU), a GNSS unit, and appropriate software. All components are included in a compact and lightweight housing, that is directly attached to the *RIEGL* miniVUX-1UAV/-3UAV laser scanner.

The combination of a miniVUX-series LiDAR sensor and RiLOC-E into a compact complete LiDAR system is the ideal solution for small-scale LiDAR surveying with drones. In such applications, using a nearby local base station ensures the shortest base length and thus maximum accuracy in the georeferencing of the high-precision LiDAR data from the *RIEGL* miniVUX-series LiDAR sensor.

Key Features

- tight coupling of IMU / GNSS / LiDAR data
- seamlessly integrated into the *RIEGL* post-processing workflow
- lightweight, small form factor

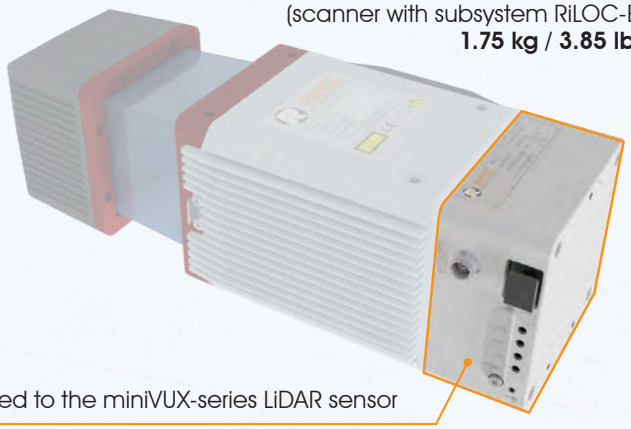


Specifications RiLOC®-E

IMU system	MEMS based
IMU sampling rates	up to more than 800 Hz
IMU acceleration range	±8 g, full scale
IMU angular rate range	± 500°/sec
Performance specifications[1)]	0.02 -0.05 m (position, post-processed)
GNSS system	L1/L2, GPS, GLONASS, Galileo and BeiDou
RiLOC-E dimensions	approx. 99 x 85 x 43 mm
RiLOC-E weight	approx. 0.36 kg / 0.8 lbs

1) short single base line operation (< 10 km); overlapping flight strips with at least 25% overlap and cross strips; elevation changes applies and/or man-made objects with planar features need to be available

total system weight
(scanner with subsystem RiLOC-E)
1.75 kg / 3.85 lbs



RIEGL RiLOC-E
directly attached to the miniVUX-series LiDAR sensor

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