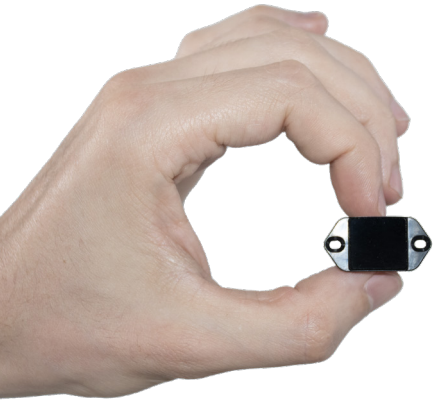


TeraRanger Neo ES

Most compact, efficient distance sensor in its range class

The TeraRanger Neo ES provides the best combination of small size, low power consumption and distance ranging on the market. Weighing only 6 g, and consuming just 50 mA, it can measure distances up to 30 m. Its flat front panel and rectangular shape greatly simplifies mechanical integration. The sensor is ideally suited for applications where space and power need to be conserved, such as drone navigation and collision avoidance, and other battery-powered range finding solutions.

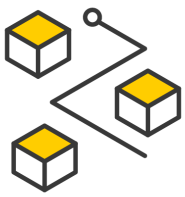
TeraRanger Neo ES is available as an Engineering Sample for testing and evaluation purposes. Please contact us if you are interested in volume production.

Key features

- Infrared Time-of-Flight technology: eye safe, operates in low light conditions
- Up to 30 meters detection range
- Small and compact: 28.2 x 15.5 x 30.5 mm (w x h x d)
- Lightweight: 6 g
- Flat front panel facilitates mechanical integration
- UART communication interface
- Compatible with Arduino, Raspberry Pi

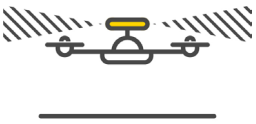
Applications

Presence detection, object counting



Robot navigation, anti-collision

Drone altimeter, precision landing



Drone obstacle avoidance

Terabee, 90 rue Henri Fabre
01630 Saint-Genis-Pouilly, France
(5 km from Geneva Airport)

+33 7 50 15 16 64
terabee-sales@terabee.com
www.terabee.com

Technical specifications

Product code	TR-NEO-ES
Performance	
Detection principle	Infrared Indirect Time-of-Flight
Range(1)	0.2 - 30 m
Update rate	25 readings per second
Output resolution	1 mm
Accuracy	Approx. 1-2% of measured value
Field of View	Approx. 2.2°
Electronics	
Supply voltage	5 V DC +/-5%
Supply current (min-max)	50 mA average (250 mW on 5 V rail)
Communication	
Interface	LP UART, +3.3 V level (+/-5%), 9600,8,N,1
Connector	Molex - CONN HEADER SMD 4POS 1.25MM
Mechanical data	
Dimensions	Height 30.5 mm Width 15.5 mm Depth 28.2 mm Screw holes 2 mm
Weight	Approx. 6g
Operating conditions	0°C to 60°C (measured inside the sensor)
Ingress protection	Sealed front panel for potential IP65 integration
Eye safety	Yes
Conformity	
Reference standard	CE, RoHS

(1) Specifications are derived from tests in controlled conditions. Bright sunlight, target surface reflectivity and other variables will affect sensor performance. The combination of very bright sunshine and low reflectivity targets (such as grass) can reduce maximum range

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