

Leddar™ evaluation kit



TEST THE POWER OF LEDDAR™ The Unique LED-Based Detection and Ranging Technology

Leddar™ Sensor Evaluation Kit

The Leddar™ Sensor Evaluation Kit is a complete Leddar™ sensor, enabling developers and integrators to evaluate and demonstrate the performance of Leddar™ Technology in their different detection and ranging applications.

Discover Leddar™ Technology

Leddar™ (Light Emitting Diode Detection and Ranging) is a novel detection and ranging technology created by LeddarTech that performs time-of-flight measurements using pulses from infrared LEDs. Combining 16 independent active segments into a single sensor, Leddar™ Technology continuously provides rapid and accurate detection and ranging in the entire beam without any moving parts. The large beam and diffused light pulses of the Leddar™ Sensor, processed through innovative algorithms, allow for the detection of a wide range of objects under various environmental conditions.

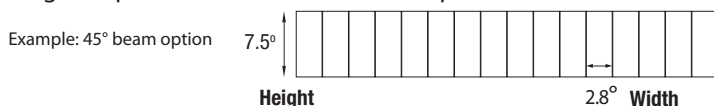
Tailored to Your Needs

Depending on your final application, patented Leddar™ Technology can easily be delivered in various formats:

- Modules
- Assemblies
- IS16 Industrial Leddar™ Sensor

Leddar™ Receiver Assembly

The Leddar™ receiver includes 16 independent segments with simultaneous acquisition capabilities. As Leddar™ Technology is offered in different formats, several beam options ranging from 9° to 45° are available. The example below refers to the evaluation kit that comes with a 45° beam. As shown, the beam width and height depend on the selected beam option.



Leddar™ Software Development Kit

The new Leddar™ Software Development Kit (SDK) enables developers and integrators to easily and rapidly integrate Leddar™ Technology into their systems. This software comes with the following features:

- .NET and C libraries with application examples in C# and C
- LabVIEW integration example
- MATLAB integration example
- RS-485 Example code (Windows and Linux)

Leddar™ Sensor Evaluation Kit to scale:



Not for resale or commercial use

Leddar™ Source and Control Assembly

The Leddar™ source and control assembly includes IR LED emitters with dominant wavelength of 940 nm and incorporates the processing and I/O for the targeted applications. In addition, the beam of the source and control assembly is matched with the Leddar™ receiver assembly.

Evaluation Kit System Performance

Detection range	0 to 50 meters (165 ft.) [†]
Accuracy	5 cm
Data refresh rate	6.25 to 100 Hz
Operating temperature range	-10°C to 50°C
Acquisition	16 segments simultaneously
Distance precision	6 mm
Distance resolution	10 mm
Power consumption	4 W

[†] Varies according to optics and target.

Features

Beam	45°
Interfaces	USB, RS-485, CAN
Wavelength	940 nm
Meets IEC 62471: 2006 criteria	Exempt lamp classification
Power supply	12 or 24 VDC
Dimensions	114 mm x 76 mm x 46 mm
Weight	265 g

Amplitude vs. Distance

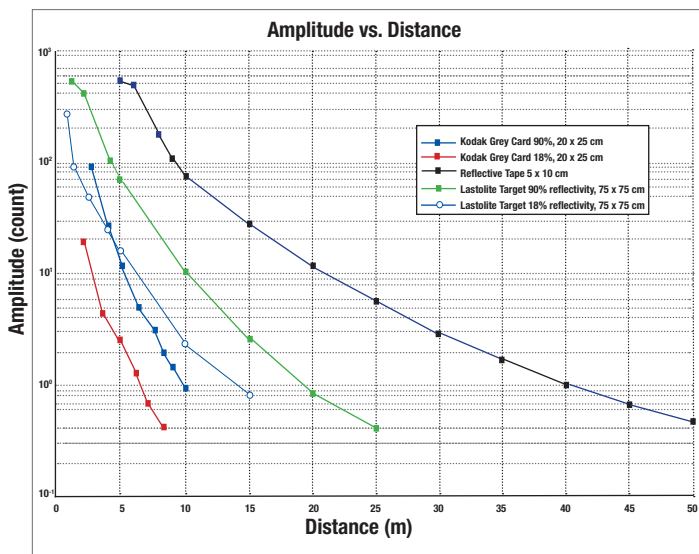


Figure: Detection amplitude of a 45° sensor for five reference objects (photography grey cards and reflective tape) of varying size and reflectivity.

Ordering Information

LED - Eval - XX - XX

Interfaces
10 = USB, RS-485, CAN

Beam
45°

Product
Eval = Evaluation Kit

Included with the Leddar™ Evaluation Kit:

- Receiver assembly
- Source and control assembly
- Mounting bracket
- Power supply
- Leddar™ configuration software CD
- USB cable

Leddar™ is a registered trademark of LeddarTech Inc. Leddar™ technology is covered by one or more of the following U.S. patents: 7635854, 7640122, 7855376, 7895007, 7917320, 8159660, 8242476, 8310655, 8319949, or international equivalents. Other patents pending.