TeraRanger Evo 64px

by TERABEE

The multi-pixel sensor of the TeraRanger Evo family!
Benefit from an 8x8 matrix of high-speed distance readings in a small and lightweight form-factor!

Key features

- 64 pixel 3D depth map
- Compact and lightweight design (from 12 grams)
- Capture fast-moving objects (up to 130 fps sampling rates)
- Start measuring from just 10 centimeters
- USB and UART interfaces. Other interfaces possible
- Immune to low light and darkness
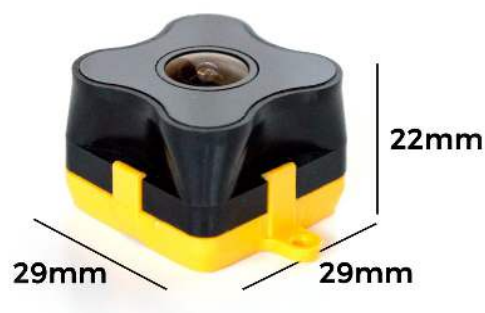- Eye-safe in all conditions
- ROS ready

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Technical Specifications

	TeraRanger Evo 64px	
Principle:	Infrared Time-of-Flight (ToF)	
Resolution:	64 pixels (8x8 matrix)	
Operating mode:	Close-range	Fast
Range:	*0.1m up to 5m	*0.5m up to 5m
Update rate:	*up to 80 fps	*up to 130 fps
Output resolution:	0.5cm	
Accuracy:	+/- 5cm 0.1m to 1m +/- 10cm 1m to 3m +/- 15cm > 3m+	+/- 10cm < 3m +/- 15cm > 3m
Field of view:	15°	
Supply voltage:	5V DC ±5%	
Supply current (min-max):	80mA - 250mA	
Interfaces:	USB 2.0 Micro-B	
	UART, +3.3V level, 3 Mbaud	
Connectors:	Single 9 pin Hirose DF13 (UART Backboard)	
	Micro USB (USB Backboard)	
Weight:	12g (sensor) + 3g (backboard)	
Dimensions:	Approx. 29x29x22mm (sensor + backboard)	
Eye safety:	Yes (IEC 62471:2006 certified)	

Specifications are derived from tests in controlled indoor conditions. Please be advised that performance outdoors can be reduced. Sunlight, low reflectivity targets (such as grass) and other variables will affect sensor performance, including maximum range, frame rate and accuracy.
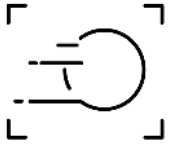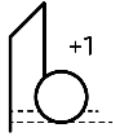
Compact design

The TeraRanger Evo 64px can be purchased via our online store
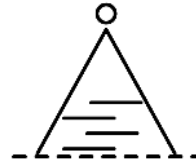**https://www.terabee.com/portfolio-item/teraranger-evo-64px-multi-pixel-sensor/**

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Applications

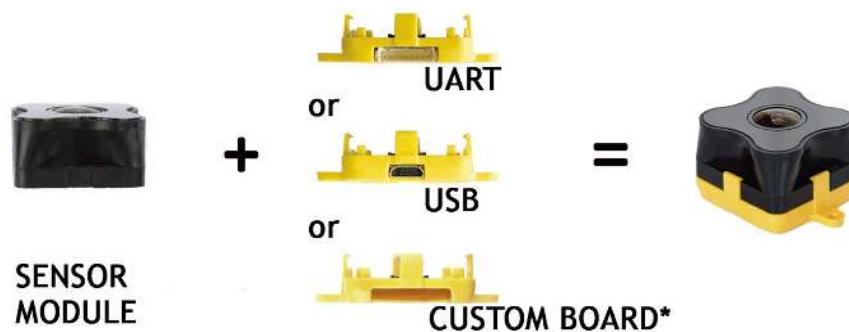| Motion tracking | Monitor and count | Detect & avoid obstacles | Multi-point level sensing | Gesture recognition |

Modular Evo Design

TeraRanger Evo 64px consists of an optoelectronic sensing device (black module, 12g) and a choice of backboard (yellow module, 3g), which simply plugs-in to provide the sensor with a communication link and power management capabilities, without the need for adaptors, converters or complex wiring. You simply choose the backboard that best suits your application and communication protocol! USB and UART backboards are available. ***Custom backboards** such as LoRa/Sigfox, Ethernet, RS485, Profibus, CAN, etc. can be made to support mass production needs.

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