

# Absolute Distance Meter

This system measures objects in 5 meters range with high accuracy 1 $\mu$ m using Optical Comb interferometer. Resolution achieves 0.1nm in specified condition. There is no need zero setting while measuring, therefore real time measurements are realized which help various industries and applications. This system is non-contact and non-destructive to objects.

## ■ Features

### ◆ Non-Contact / Non-Destructive

Measures objects non-contact and non-destructive using laser beam.

### ◆ Long Distance / High Resolution

Measures objects with high resolution in long distance by using Optical frequency comb , high-coherent wide band light source.

### ◆ High Accuracy

Optical frequency comb is highly accurate laser which is available to optical frequency standard.

### ◆ No Need Zero Setting

Not required to return to home position even when the beam is interrupted.

### ◆ High Speed

Point sample rate is 500,000/s. Real time measurements are available.



**Absolute Distance Meter**

## ■ Industries and Applications

### ◆ Industries

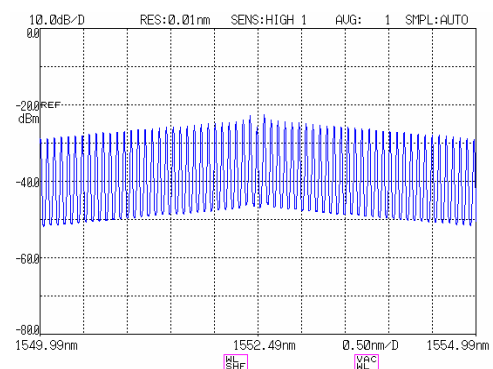
Energy: Wind-power, Turbine, Aerospace, Ship, Railway  
Automotive: Engines, Flames  
Heavy equipments: Tires, Body

### ◆ Applications

Alignment, Positioning, Installation, Inspection, Reverse engineering, Health monitoring, etc.

## ■ Optical Frequency Comb Spectrum

The light source with equally spaced multi wavelength.



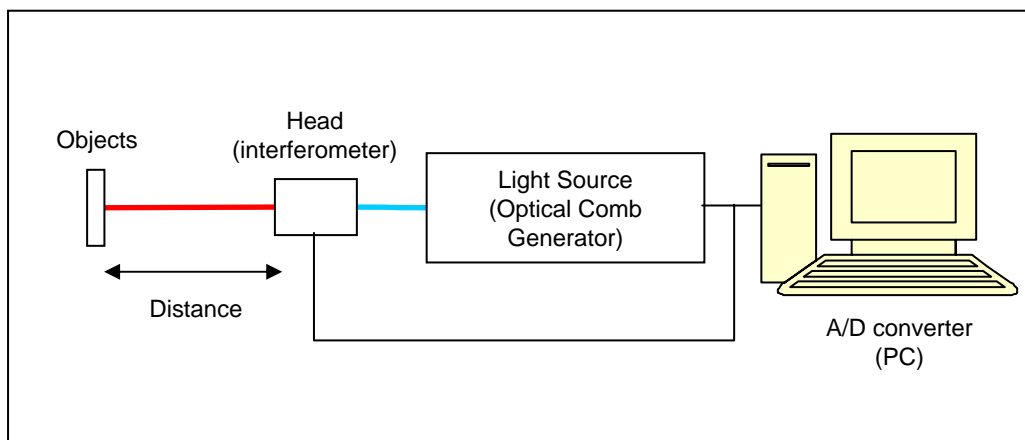
## ■ Specifications

Item	Specifications
Distance	~ 5m* <sup>1</sup>
Resolution	0.01μm (standard) 0.1nm (specified conditions)
Accuracy	1μm@5m
Measurement Time	2μs ~ 1s (depends on accuracy and resolution)
Wavelength	1550nm* <sup>2</sup>

\*<sup>1</sup> Contact us in case of longer distance (> 5m).

\*<sup>2</sup> Laser pointer (visible) is built-in.

## ■ System Configuration



## ■ Head\*

Interferometer is built-in the head



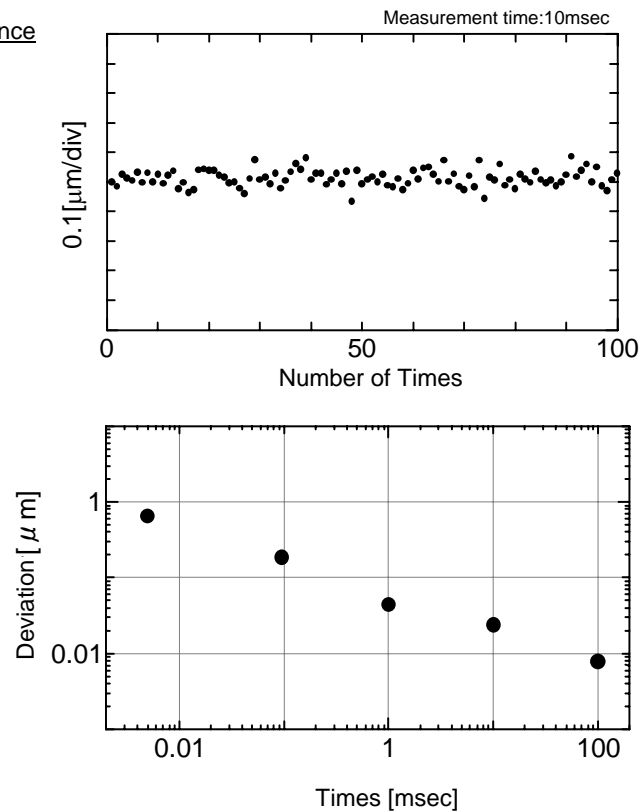
Laser ray is an image.

Dimensions: 72mm (W) × 43mm (H) × 100mm (D)  
Weight : < 300g

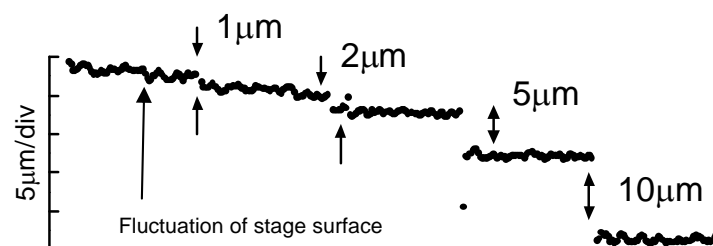
\* Dimensions and designs depend on the specifications

## ■ Measurement Example

### Measurements of distance



### Measurements of Steps



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