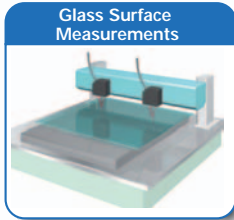
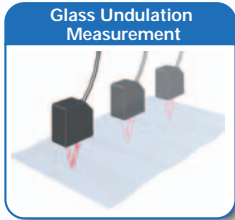


## Ideal Application Examples for Each Distance Range

### ZS-LD40T



Ideal for measuring glass thickness and nozzle gaps when coating glass with resist or sealer.



Perform high-precision thickness and undulation measurements of many types of FPD glass. Helps improve quality and yield.

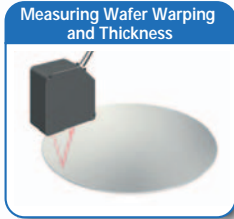


Ideal for autofocus applications in inspection cameras for glass PCBs.



High-speed response and stable measurement performance enable high-precision measurements of surface deflection in mirror-surface hard disks.

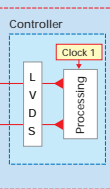
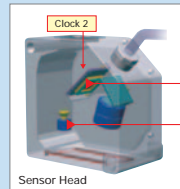
### ZS-LD20T



## Technology

LVDS digital processing and line beam application enable unbelievably stable measurements.

### Mechanisms for High Resolution

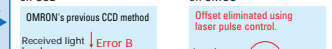


**Received Light Signal Control** *Industry First*  
High resolution is achieved by eliminating clock offset to create a super-stable image signal. (Achieving 1/5th to 1/10th of previous resolution.)



**Laser Pulse Control**  
The light quantity can be adjusted to any value between a few μs and up to 80 ns. This enables achieving the ideal light quantity for the workpiece to reduce measurement error.

**Results**  
Received light distribution on CCD



OMRON's previous CCD method

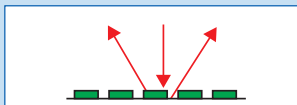


Offset eliminated using laser pulse control. Offset eliminated using received light signal control.

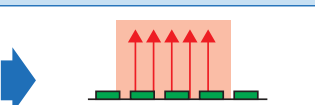
### Mechanisms for Stable Measurement



Averaging Effect of a Line Beam



Spot beams can be unstable depending on the measurement location.



Line beams produce an averaging effect that is less likely to be affected by surface irregularities, creating stable measurements.

# ZS-LD20T

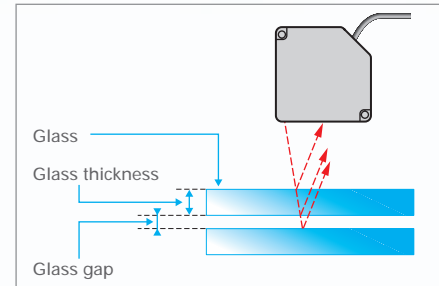
## The Only Way to High-precision Displacement Measurements

### Superior Features for Semiconductor Wafer, Glass, and Other Measurements Requiring Precision

An unbelievable stationary measurement precision of 0.01 μm (10 nm\*), the highest in this product class. \* nm (nanometer) = 10<sup>-9</sup> m

### Easy Sensing with an HMI That Couldn't Be Easier to Use

#### A New Glass Mode



#### Set sensing directly.



FUN (setting mode)

Direct setting with function keys

Menu selections for glass, glass thickness, and the glass gap have been provided to enable easily setting glass measurement conditions.

### Setting Software: SmartMonitor Professional

The SmartMonitor Professional can be used to set the glass thickness and gap while monitoring the CMOS light reception image to enable accurately setting the measurement surface. (There are also menu selections for setting the measurement area and other conditions.)

Connect directly to a computer using USB



Height of front glass surface

Height of back glass surface

