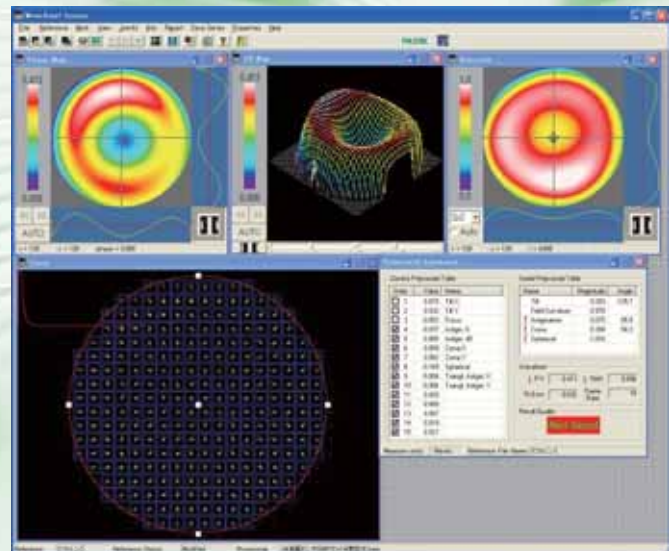


# PWS-1000

Pulstec Wave-front Sensor



## ■ SYSTEM OUTLINE

This sensor is based on Shack-Hartmann method and can measure the light source and the optical aberration in real time. It is capable of measuring Zernike polynomial term (15/24/36), Seidel aberration factor and general wavefront aberration. It also have functions showing Interference fringes, 2D/3D phase Map, Intensity distribution and Point spread function. Test result (Good or NotGood) can be measured at given value.

## ■ FEATURES

- High speed processing enables real time measurement: 3Hz for graphics and 10 Hz for numeric.
- Suitable for various light beam measurement insensitive to coherency.
- Applicable to various types of equipment by compact & light design.
- Easy to plug into computer by IEEE1394 interface.

## ■ APPLICATION

- Light beam qualification by Wavefront measurement
- Optically transparent components test
- Wavefront sensor for adaptive optics
- Optically reflective components test

## ■ SPECIFICATION

### ● High Speed Wavefront Sensor PWS-1000 Standard Specification

Measurement Wavelength	400-800nm *1
Laser Beam Diameter	φ 2.0-4.6mm
Accuracy	< 1/100λ RMS (3σ) *2
Repeatability	< 1/500λ RMS (3σ) *2
Data Update	Max 10Hz
External Interface	IEEE1394 (6pin)

\*1 Require to get the reference of each of wave length.

\*2 Affected by the beam intensity distribution, absolute wavefront error and measurement environment.

### ● Related Products

## ■ Reference Laser Diode Source

### ● Standard Specification

	Point Source			Collimated Source		
Wavelength	405±5nm	650 + 5/-0nm	780±5nm	405±5nm	650 + 5/-0nm	780±5nm
Wavelength Aberration	< 1 / 50λRMS					
Polarization	Circular (Standard)					
Laser Power Control	Auto Power Control (APC )					
Laser Temperature Control	Proportional Integration Control					
Dimension of Laser Head	179×ϕ44.5mm (L×ϕ )			253×ϕ44.5mm (L×ϕ )		
Weight of Laser Head	About 1.0kg			About 1.4kg		
Dimension of Driver	152×61.5×167mm (W×H×D )					
Weight of Driver	About 1.2kg					
Power Requirement	AC 100-240V / 50-60Hz (30W )					



## ■ NA0.9 Collimating Lens

### ● Standard Specification

Wavelength	405nm and 655nm
Focal Length	2.4mm (@405nm) / 2.54mm (@655nm)
Numerical Aperture (NA)	0.9 (@405nm) / 0.7 (@655nm)
Working Distance	More than 1.0mm
Weight	About 150g



## ■ Cover Glass

Wavelength	405nm		655nm
Substrate Thickness	0.0875mm	0.1mm	0.6mm

\* The content of these specifications may change without notice.

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