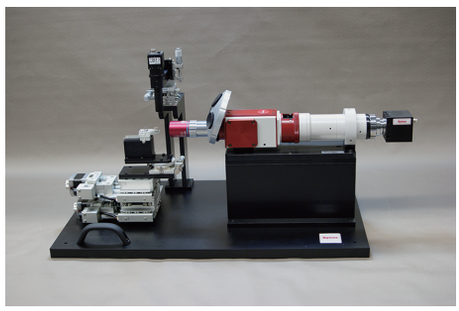
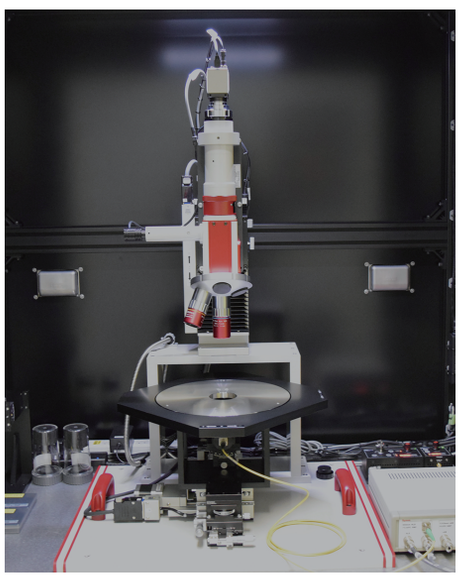
FOCAL POSITION AUTOMATIC MEASUREMENT SYSTEM

Automatic measurement of focal position and beam waist of lenses, LD modules, etc. by combining NFP measurement and motorized positioning stage.

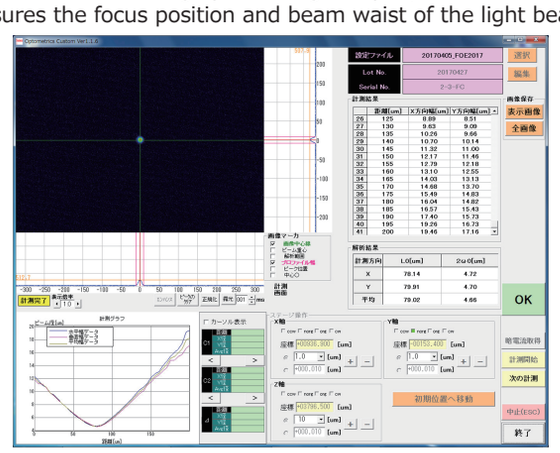
Focal position automatic measurement system is a system that realizes automatic measurement of the focal position and the beam waist of lens, LD module, fiber module, etc. by combining NFP measurement system and high precision motorized stage system. By selecting detectors, it is possible to respond to measurement in 400~1100nm and 950~1700nm spectral range.



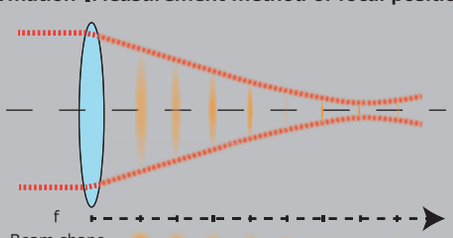
【Vertical setting focul point automatic measurement system】
In addition to horizontal installation for optical fibers and fiber modules, vertical installation for measurement of glass substrates and LD modules is also possible.

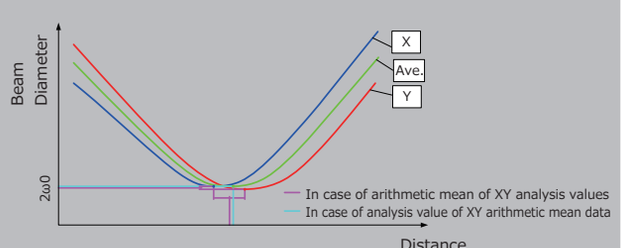


【Focul position automatic measurement software】
Performs linked control of the motorized stage and NFP measurement and image processing analysis, and automatically measures the focus position and beam waist of the light beam.



☞Technical information【Measurement method of focal position/beam waist automatic measurement】





【Measurement method】
- A motorized stage is used to move optics or sample to focal direction in microsteps.
- Acquire the beam image (NFP image) at each focal position.
- Measure the beam diameter at each focus position.
- The beam diameter at each focus position is analyzed to calculate the focus position.

【Component selection of focal position measurement system】

○Stages・optics bench

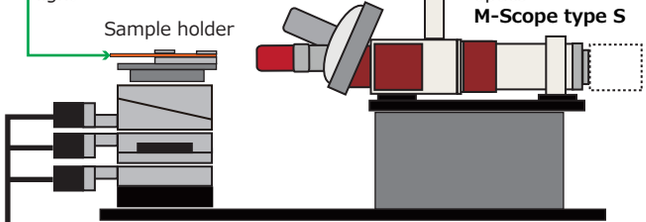
Measurement light source

Measurement light

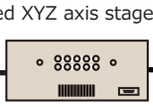
Sample holder

○NFP measurement optics

Sophisticated NFP optics
M-Scope type S



Motorized XYZ axis stage system

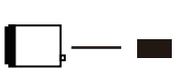


Motorized stage controller

●Vibration isolation table, bread board, support structure, brackets, safety control unit, instrument rack, etc.

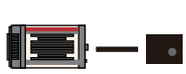
○Detector selection

●for 400~1100nm



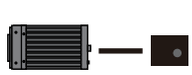
Hi-resolution CMOS detector
ISA071/ISA071GL

●for 950~1700nm



InGaAs high sensitivity NIR detector
ISA041H2

●for 400~1700nm



InGaAs high resolution NIR detector
ISA041HRA/HRVA

○System control & data analysis

●Personal computer
・Main unit
・Accessories

●Focal position automatic measurement software

○Accessories

●ND filter

●Objective lens

●Coaxial epi-illumination system