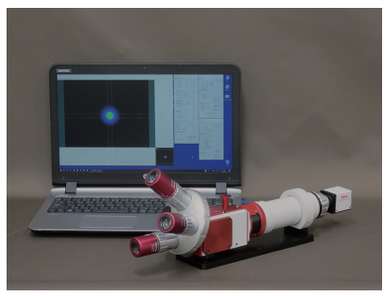
OPTICAL BEAM NFP MEASUREMENT SYSTEM

High performance optical beam profile measurement and analysis system in combination with NFP measurement optics & image processing.

Optical beam NFP measurement system is a general-purpose high-performance optical beam profiler system with image processing method that can be widely applied from observation and measurement of optical beam profile of light emitting element, optical fiber, optical waveguide, various optical modules, etc. to emission characteristic analysis.



【Features】

○**M-Scope type S**, sophisticated NFP measurement optics
- ● Equipping manual revolver to switch multiple objective lens
- ● Microscope image observation is possible with the coaxial epi-illumination system (option)

○Possible to measure in 400nm to 1700nm wavelength range by selecting detector.

○Optical beam analysis module **AP013**, specially designed high-functional image processing software for optical beam profile analysis
- ● All-in-one package of PC, optical beam analysis software, detector driver, correction data.
- ● High-performance image processing software for optical beam profile measurement **Optimetrics BA Standard** is pre-installed.

○It is also possible to build a low-cost system using the simplified NFP measurement optical system **M-Scope type L**.

【Standard component】

○NFP measurement optics selection
- ● Sophisticated NFP measurement optics **M-Scope type S** : Equipped with manual revolver, high functionality and expandability
- ● Simplified NFP measurement optics **M-Scope type L** : Monocular type, not compatible with epi-illumination

○Available detector selection
- ● 400~1100nm : Hi-resolution CMOS detector **ISA071/ISA071GL**
- ● 950~1700nm : InGaAs high sensitivity NIR detector **ISA041H2**
- ● 400~1700nm: InGaAs high resolution NIR derector **ISA041HRA**

☞Regarding the field of view and pixel resolution during NFP measurement by the detector used, please refer to P50 【Detector selection and NFP measurement specifications】

☞ Other detectors can also be used.

○Optical beam analysis module **AP013**
- ● PC for image processing, optical beam analysis software **Optometrics BA Standard**, detector driver, calibration data, USB key

○Accessories
- ● Cables, instruction manuals, etc.

【Option】

○Objective lens selection
- ● Select the objective lens according to the optical magnification (field of view), pixel resolution, N.A., wavelength, etc.

○Option for optics (for **M-Scope type S**)
- ● 2× intermediate lens port **MS-OP011-RL2** : Intermediate lens unit that doubles the overall magnification
- ● 1/2× intermediate lens port **MS-OP011-RLH** : Intermediate lens unit that halves the overall magnification
- ● Coaxial epi-illumination port **MS-OP011-CEP** : Coaxial epi-illumination port with removable half mirror

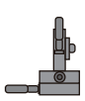
○ND filter
- ● Visible (400~700nm): **NDF-5** (5 types per set)
- ● NIR (700~1100nm): **NDF NIR-5** (5 types per set)
- ● IR (1310~1550nm): **NDF IR-5** (5 types per set)

○Coaxial epi-illumination light source (for M-Scope type S)
- ● Visible~NIR: LED epi-illumination system
- ● IR: 950nm IR-LED epi-illumination system (for InGaAs-type detectors)

○Optics bench
- ● Optics bench for fiber measurement with manual stages
- ● Vertical setting optics bench

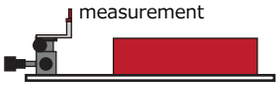
【Component selection of optical beam NFP measurement system】

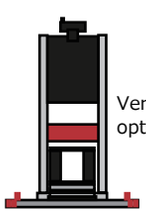
○Stages・optics bench



Sample stages
Optics stages

Optics bench for fiber measurement



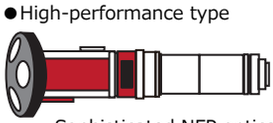


Vertical setting optics bench

＊Can be combined with various motorized/manual stages

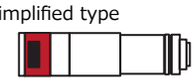
○NFP measurement optics selection

●High-performance type



Sophisticated NFP optics
M-Scope type S

●Simplified type

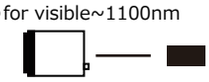


Simplified NFP optics
M-Scope type L

●Option for **M-Scope type S**
- ・2× intermediate lens port **MS-OP011-RL2**
- ・1/2× intermediate lens port **MS-OP011-RLH**
- ・Coaxial epi-illumination port **MS-OP011-CEP**

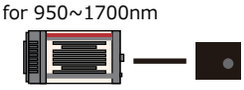
○Detector selection

●for visible~1100nm



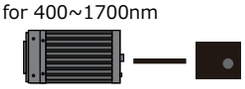
High resolution CMOS detector **ISA071**

●for 950~1700nm



InGaAs high sensitivity NIR detector **ISA041H2**

●for 400~1700nm



InGaAs high resolution NIR detector **ISA041HRA/HRVA**

*Detectors other than the above can also be used.

○Optical beam analysis module **AP013**

●Personal computer
- ・Main unit
- ・Accessories

●Optical beam analysis software **Optometrics BA Standard**
●Detector driver
●Calibration data
●USB licence key

○Accessories

●ND filter

●Objective lens

●Coaxial epi-illumination system (for **M-Scope type S**)